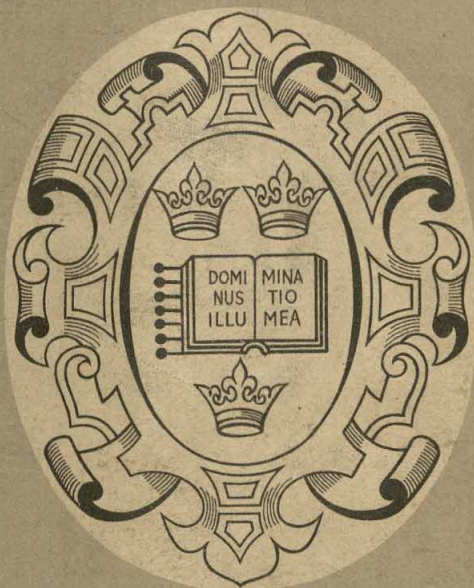


OXFORD JUNIOR ENCYCLOPAEDIA

INDEX AND READY REFERENCE VOLUME



Chronological Charts of the Main Events of World History
People and Places in the Bible * Mountain Heights and Ocean Depths
Life Cycles of Animals * The British Constitution
People and Places in Greek and Roman Mythology * Flower Families
The Farming Landscape * Foreign Currencies
Maps of the Great Empires of the World
Index

OXFORD JUNIOR ENCYCLOPAEDIA

INDEX AND READY REFERENCE VOLUME

This volume completes the *Oxford Junior Encyclopaedia*.* Each of the twelve volumes is arranged for maximum ease of reference; but the comprehensive index in this volume will be an aid to the most effective use of the *Encyclopaedia* as a whole.

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A SERIES OF SKETCH-MAPS, showing the known world at various stages of history from Herodotus to James Cook, and the great empires of the world from Alexander to Napoleon.

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COUNTRIES OF THE WORLD, a brief summary of the most important information about all the main countries.

* For a list of the volumes see back of this jacket

OXFORD JUNIOR
ENCYCLOPAEDIA

INDEX
AND
READY REFERENCE VOLUME

OXFORD JUNIOR ENCYCLOPAEDIA

GENERAL EDITORS

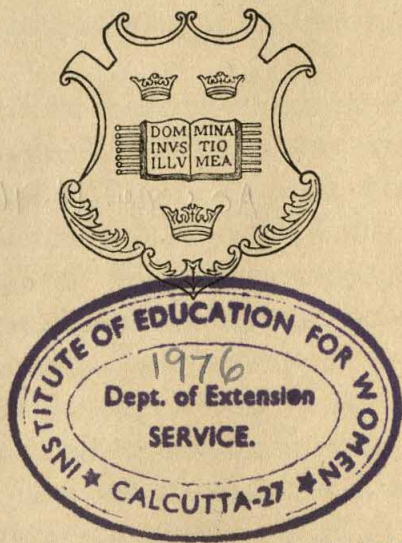
LAURA E. SALT AND ROBERT SINCLAIR

ILLUSTRATIONS EDITOR: HELEN MARY PETTER

INDEX

AND

READY REFERENCE VOLUME



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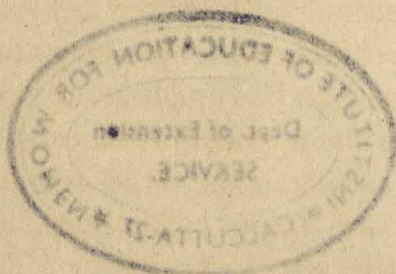
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PREFACE

IN authorizing the preparation of this work the Delegates of the Oxford University Press had foremost in mind the need to provide a basic book of reference for school libraries. In form it was to be a genuine encyclopaedia, in treatment and vocabulary suitable for the young reader. To many children (and indeed to many adults) reading is not a natural activity: they do not turn to books for their own sake. But they can be trained to go to books for information which they want for some particular purpose—and thus, very often, to form a habit which will be of lifelong value. Their capacity to read continuously for any length of time being limited, they can absorb knowledge better if they get it in small quantities: therefore they will often read reference books when they may reject the reading of more extended matter. Again, it is probably true to say of such readers that their approach is from the particular to the general, and from the application to the principle, rather than the reverse, that their main interest is in the modern world around them, and that since they are not very good at conceiving things outside their own experience, their capacity for grasping abstract ideas is limited. On the other hand, once their interest is aroused, they will often pursue a subject to remarkable lengths, so long as its development is logical and the treatment avoids dullness.

But such generalizations can easily be overdone: many children using the books will not be of this type. Moreover, it was evident from the first that a project involving so great an amount of work, however exactly it might meet its principal mark, would be fully justified only if it could be of service to a far wider circle of readers. Even for the age-group first in mind, anything like 'writing-down to children' must plainly be taboo—but clear exposition and simple language are no bad qualities in writing for any audience. Here, then, it seemed, was the opportunity to provide a work of reference suitable for many readers to whom the large, standard encyclopaedias are too heavy and technical, and the popular alternatives for the most part neither sufficiently complete nor authoritative. The fact that the plan allowed for an exceptionally large proportion of illustrations to text (between one-quarter and one-third of the total space) is an advantage to any reader, since pictures may, in many instances, save whole paragraphs of involved explanation. With these secondary aims well in mind, therefore, the General

Editors have ventured to hope that the encyclopaedia may find usefulness not only among certain younger children, but also among older students in clubs, libraries, and Young People's Colleges, and even to no small extent among their parents and other adults who may wish for a simple approach to some unfamiliar or forgotten subject.

SCOPE AND EMPHASIS. Within certain limits the OXFORD JUNIOR ENCYCLOPAEDIA purports to be reasonably comprehensive, though (in common with all general encyclopaedias) not exhaustive. Chief among these limits is that matter already easily available in school textbooks is included only so far as its presence is necessary for the proper understanding of the subject under discussion. Thus, although an immense field of history is surveyed, it will be found mainly under headings dealing with its effects, or in the biographies of those who lived to make it. Purely technical or scientific subjects, also, are omitted except when they have some general interest. In natural history and kindred studies the immense variety of forms necessarily led at times either to their treatment by groups or to their omission on purely arbitrary decisions as to which species would, in all probability, never be looked for, or because there was nothing particularly interesting to say of them. In point of general balance the stress is laid rather on the modern world, though due space is given to the factors which have shaped it, no less than to those which are changing it.

ARRANGEMENT. The encyclopaedia is planned to consist of twelve volumes. Each is arranged alphabetically within itself, and each deals with a particular range of related subjects. Within its terms of reference, then, each volume is virtually self-contained, and, owing to the great number of single-line cross-references, can well be used alone. This arrangement, which has several incidental advantages (as of production, in difficult times, and of prompt revision later), arose mainly from one consideration. If articles were to be kept really short—and, in fact, few approach and almost none exceeds 2,000 words—many subjects could be dealt with comprehensively only by referring the reader to other relevant articles—itself a desirable thing to do. It was clearly preferable for these to be under his hand, rather than be dispersed through any of the twelve volumes at the caprice of the alphabet. This the present arrangement achieves to a great extent. If it has led to a small amount of overlapping, that again is not without its advantages.

The cross-references play an indispensable part in the make-up of the encyclopaedia. They are of two kinds: references in the text to further articles amplifying the particular point under review, and references at the end of an article to others taking the whole subject farther. Therefore, a reader looking up any wide subject, such as CIVIL ENGINEERING, and following up its cross-references either in the text or at the end of the article, can discover under what main headwords the subject is treated. These, again, will refer him to any subsidiary articles, as also, in many cases, to those of a complementary nature. Thus he may be guided either from the general to the particular or vice versa. It is believed that the titles of the twelve volumes (see p. xiv), in conjunction with their sub-titles, will usually lead the reader straight to the volume containing the information he wants. If, however, he cannot decide immediately in which volume to look, or fails to find what he wants where he expects it, he must turn to the Index Volume. There he should find clear directions as to where the information he is wanting is to be found. If, for example, he looks up something precise, such as MARMOSSET, he will learn that this is a monkey and that he must turn to Volume II, page 275*a*. If he looks up something more general, such as ENGINES, he will find a number of entries, and by reading these through he will learn exactly where to look for the particular type of engine he has in mind.

L. E. S., R. S.

OXFORD, 1956

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CONTENTS

THE MAIN EVENTS OF HISTORY, 4000 B.C.—A.D. 1945. <i>Charts and pictures</i>	page 1
THE KNOWN WORLD. <i>Maps</i>	50
The world of Herodotus, 450 B.C.	
The world of Eratosthenes, 3rd century, B.C.	
The world of Ptolemy, 2nd century, A.D.	
Mercator's world map, 1569	
The world before Cook's explorations.	
GREAT EMPIRES. <i>Maps</i>	52
The Empire of Alexander the Great	
The Roman Empire under Constantine	
The Empires of Islam, Charlemagne, and Byzantium, about 800	
The Mongol Empire, c. 1300	
The Ottoman Empire at the time of Mohammed II, 1451-81	
The Empire of Charles V, 1555	
The Empire of Napoleon, 1800	
The British Empire in 1922, including mandated territories.	
THE BRITISH CONSTITUTION. <i>Chart</i>	56
EUROPE BEFORE AND AFTER THE FIRST WORLD WAR. <i>Maps</i>	58
THE MAIN EVENTS OF THE FIRST AND SECOND WORLD WARS	59
MOUNTAIN HEIGHTS AND OCEAN DEPTHS. <i>Diagram</i>	62
THE CHARACTERISTICS OF THE MAIN FLOWER FAMILIES. <i>Charts</i>	63
FARMING SEASONS. <i>Pictorial charts</i>	72
TYPES OF FARMING. <i>Distribution map</i>	80
"	81
THE FARMING LANDSCAPE. <i>Photographs</i>	81
SUMMARIES OF THE MAIN COUNTRIES OF THE WORLD	98
FOREIGN CURRENCIES	118
MOTOR VEHICLE INTERNATIONAL REGISTRATION LETTERS	119
WEIGHTS AND MEASURES	120
A GUIDE TO THE PRINCIPAL PEOPLE AND PLACES IN THE OLD AND NEW TESTAMENTS	123

SAINTS	133
GUIDE TO THE CHARACTERS IN GREEK AND ROMAN MYTHOLOGY .	137
THE LIFE CYCLES OF ANIMALS	144
SOURCES OF FURTHER INFORMATION	146
INDEX OF VOLUMES I-XII AND INDEX VOLUME	153

HOW TO FIND OUT WHAT WE WANT TO KNOW

THE volumes of this encyclopaedia, especially if we learn to use the index properly, will provide the answers to many queries on all manner of subjects: who built the Taj Mahal, how many different kinds of fish there are, who first used anaesthetics, how a calculating machine or television works, how nuclear energy can be made to provide power for industry, and a very great number of other things. A general encyclopaedia is like a miniature library, and we must use the index like a library catalogue to look for what we want. If we cannot find what we want under the first heading we look up, we must think of another possible heading and see if that is more successful.

But all we might want to know about all subjects could not possibly get into twelve books—even twelve big books like this. So we may find that the particular aspect of a subject about which we want information is not dealt with, or that having read an article—on climbing Mount Everest, for example—we have become interested and want more detail than a short encyclopaedia entry can give. Even after following up the cross-references in and at the end of the article, there is still much we want to know.

What, then, is the next step? The true research worker wastes no time in vague exploration; he goes at once to his nearest known source, and only if that fails, casts his net wider. This kind of exploration may, if we are lucky, take us quickly to our goal, but it may lead us far afield and demand from us time and patience, and some ingenuity in thinking of other possible ways of finding what we want. But, as with any kind of exploration, reaching a successful conclusion is extremely satisfying.

.. Books are by far the most usual sources of information on most subjects. Possibly we have a book on our own shelves which will help us, and that is far the most satisfactory, for then we can consult the book as and when we need it, with no worry about when it is due back to the library. Wise people, therefore, will begin collecting books of their own on subjects which particularly interest them. If, however, the books in our own house do not help or we still want more, we must turn to libraries. Nowadays there is hardly anyone, at any rate in Britain, who cannot reach a library from which he can borrow books, generally without any payment. Many schools now have their

own libraries stocked with the kind of books which will be useful to young readers seeking information; and the public libraries have Junior Departments also specializing in the needs of young readers. In these are librarians who are trained in how to use reference books quickly and efficiently and how to find out what are the best books on a particular subject. If the book we need is not in our library, the librarian will take steps to get it. He will send a request for the book to the Regional Bureau, which keeps a record of what books are held by all the libraries in the region. The Bureau, as soon as it has found out which library has the book, will send a request to that library to send the book to the library needing it. If there is no copy of the book in the region, the Regional Bureau will send a request for it to the National Central Library in London. So it would have to be a very rare book which could not be obtained in this way by any library in the country.

When we have found the book we need, the next thing is how to find out what we want from it without reading it all from beginning to end. There are two useful clues. First we can look at the list of chapter headings at the beginning of the book, and this may make it quite clear what part of the book we need to read. If not, we should look up our subject in the index at the end. This may give us several page references, and by following these up we can find all the book has to say on our subject.

Sometimes it is not at all easy to find answers to queries which arise, and the most obvious lines of inquiry do not lead to an answer. Then it is necessary to think around the question to find another method of approach. The four most common lines of approach may be summed up in the four simple terms—Persons, Places, Things, Events.

Recently a librarian was asked, 'Joseph W. Swan, inventor of electric light, installed it in his home, Low Fell. Where is Low Fell?' Approaching this problem along the lines suggested, the librarian decided that it was a 'Place' question. But, although the gazetteer of Great Britain gave the location of a place called Low Fell, it could not be assumed that the house was in the same district. (It must be remembered, for instance, that Somerset House is not in the county of Somerset.) The librarian was unable to find any 'place' book, that is, any gazetteer, guide book, or directory, which gave him the answer. He therefore tried the other angles of approach, finding certain facts and asking certain questions at each step as follows:

Things. The electric lamp is an object described in many books of inven-

tions, scientific directories, &c. Do any of these mention the whereabouts of the house? No.

Persons. Who was Joseph W. Swan? Do any biographical dictionaries give information about his house? Many details of his life were found, for example, in the *Dictionary of National Biography*, but still nothing about his house. The various events of his life were next considered.

Events. Swan died in 1914. Did *The Times* have an obituary notice containing the required information? No. He was knighted in 1904. This event was no doubt reported in *The Times*. Was the house mentioned? No.

His first incandescent bulb was shown to a scientific society in Newcastle in 1879, and his house was lighted the same year. Was the demonstration reported in *The Times*? No. Or in any scientific paper of that year? No. But in the issue of *Nature* for 29 December 1879 there appeared a letter to the editor written by Swan from his home address, given as Underhill, Low Fell, Gateshead. So, at last, by exploring all the ways and byways, the librarian could triumphantly produce his information.

Most of the facts which the majority of people want to find from a library do not involve as complicated a research as this, but the principle is the same, and applies even to using a straightforward index, such as is given at the end of this volume. If one line is not successful, try another.

When books do not seem likely to provide the desired information, the librarian may turn to a specialist institution such as The Institute of Bankers, The Royal Geographical Society, or the Severn Wild Fowl Trust. Or again, he may turn to a local or national museum or art gallery, for these places do not only exhibit their treasures, but also often carry out an equally important kind of activity not open to the public. The Science Museum in South Kensington, for example, or Whipsnade Zoo, have workrooms, laboratories, and offices where specialists are constantly studying and experimenting, each in his own branch of knowledge, in order that more and more information may become available. Many smaller museums and art galleries in other parts of the country are doing just the same thing. These people are nearly always ready to help, even on quite simple problems. On p. 146 of this book there are set out under subject headings the names and addresses of a number of such museums, libraries, galleries, and institutions where useful information can be found. The first inquiries should be made to local institutions, and then, if these fail or we need more information, we can go farther afield.

PLAN OF VOLUMES

I. MANKIND

EVOLUTION
ANCIENT WORLD
RACES AND NATIONS
RELIGIONS
MYTHOLOGY
FOLK-LORE

II. NATURAL HISTORY

BEASTS
BIRDS
FISHES
REPTILES
INSECTS
PLANTS

III. THE UNIVERSE

PHYSICAL LAWS
ASTRONOMY
GEOLOGY
WEATHER
GEOGRAPHY
COUNTRIES AND TOWNS

IV. COMMUNICATIONS

LANGUAGE
WRITING
PRINTING
BROADCASTING
LAND TRAVEL
AIRCRAFT
SHIPS

V. GREAT LIVES

PHILOSOPHERS
ARTISTS
WRITERS
SCIENTISTS
REFORMERS
LAWGIVERS
EXPLORERS

VI. FARMING AND FISHERIES

HOME CROPS
TROPICAL CROPS
DOMESTIC ANIMALS
FORESTRY
HUNTING AND TRAPPING
FISHING
GARDENING

VII. INDUSTRY AND COMMERCE

MINING
MANUFACTURE
MARKETING
MONEY
BUSINESS
TRADES

VIII. ENGINEERING

POWER
MACHINERY
FUELS
MATERIALS
TOOLS
INSTRUMENTS
STRUCTURES

IX. RECREATIONS

THEATRE
CONCERT
DANCE
CLUBS AND SOCIETIES
SPORTS
GAMES
PETS

X. LAW AND ORDER

WORLD AFFAIRS
GOVERNMENT
JUSTICE
ARMED FORCES
PUBLIC SERVICES
LOCAL GOVERNMENT

XI. THE HOME

HOUSES AND FURNITURE
HOUSEKEEPING
THE KITCHEN
THE NURSERY
CLOTHES
HEALTH

XII. THE ARTS

LITERATURE
DRAMA
MUSIC
PAINTING
SCULPTURE
ARCHITECTURE

INDEX AND READY REFERENCE
Covering entries in all 12 volumes

HOW TO USE THIS BOOK

THIS VOLUME is a companion to the twelve main volumes of the Oxford Junior Encyclopaedia; it acts as a guide to the other volumes and gathers together information spread among several volumes into an easily comprehended summary. The volume falls into two parts: the first part is a collection of charts, maps, tables, and lists, summarizing or expanding subjects already dealt with in the other volumes; the second part is a full index to the whole Encyclopaedia.

Although the Encyclopaedia has been planned in such a way that more often than not it is possible to guess which volume will contain the information you want and under what headword, this is not always the case. Usually it is quicker and more certain to make use of the index. Many subjects which you may wish to look up are dealt with from different aspects in more than one article or even volume. The index entry will enable you to turn directly to the article which gives what you are wanting. For example, if you look up the subject **Food** you will find a long entry setting out all the possible aspects of food about which you may want to read. You will see that if you want the history of human food, food values, food poisoning, or food preserving you must look at various articles in Vol. XI; if it is farm animal foods that you are interested in, Vol. VI is the place to look; the nutrition of wild animals or plants is described in Vol. II; whereas Vol. VII has articles on food trades and eating houses, and Vol. X on the laws of food hygiene. Again the index entry on **Motor-cars** gives references to articles in Vols. IV, VII, VIII, or IX according to whether it is the history of motor-cars you are wanting, the motor-car industry, technical articles on the internal combustion engine, or on brakes, clutches, or gears, or an account of motor-car racing and rallies.

The index entries, where possible, start with a simple definition, so that you may know at once, without further research, that, for example, **Grendel** is a Scandinavian legendary monster; that George **Grenfell** was a British missionary and explorer who lived from 1849 to 1906; that **Grey Friars** are Franciscan friars; that **Grilse** are salmon about to spawn; that **Grimsel** is a lake in the Bernese Alps; that **Groat** is a coin, and so on. Thus, the index not only directs you to the appropriate article but forms in itself a 'ready reference'.

The first part of this volume also serves as a 'ready reference'. For example, there are alphabetical lists giving the principal people and places in the Bible with their Biblical references, the characters of Greek and Roman mythology, and the saints of the Christian Church. This part of the volume, however, can be used only to full advantage if it is read in conjunction with the articles in the main Encyclopaedia to which it makes constant reference. The full chronological charts with which the volume begins, for example, act as a guide to all the diverse articles of historical interest in all the twelve main volumes and set these many subjects into one time pattern. Again, the charts setting out the main flower families are a development of one or two articles in Vol. II which should be read in order that the charts can be properly understood. To use intelligently the table of foreign currencies and their relation to the British £1, you need to have read the article on RATES OF EXCHANGE in Vol. VII and that on CURRENCY CONTROL in Vol. X. And the summaries of the different countries of the world give only the bare bones of the matter, a skeleton which can be clothed with flesh by following up the various volume references.

In general, then, the first part of this volume is attempting to present in visual and diagrammatic form those topics which lend themselves to this treatment, and often, by drawing together subjects dealt with in different parts of the Encyclopaedia, to throw fresh light upon them.

HISTORICAL CHARTS

IN the following 48 pages an attempt has been made to put all the main events and big movements which have taken place in the history of the world from 4000 B.C. to A.D. 1945 into a simple chronological pattern. From this series of charts it may be seen quickly when any particular event took place, what other events were taking place at the same time in the same or different parts of the world, and what events were taking place or great people were living at any given time in history.

In order to do this the 6,000 years involved have been broken up into twelve periods, the periods covering a shorter and shorter space of time as they get nearer to the present day: for example, the first period runs from 4000 B.C. to 600 B.C., the second from 600 B.C. to 1 B.C., whereas the last period covers only 31 years. Each period is dealt with in two openings of the book, the first setting out chronologically the facts of the period, and the second presenting the same period in a series of pictures, showing such aspects of the period as the costume worn, the type of building, the kind of furniture or personal decoration, the methods of transport, and particular social customs or forms of entertainment.

These charts can be useful only if they are used in the right way. They can do some things which the articles in the other volumes cannot do, but they are not substitutes for the articles and if treated as complete in themselves would prove misleading and unsatisfactory. Their aim is simple: to give factual information, such as the date of an important battle or act of parliament, the length of a war, or the time of a religious movement. Because they are summarizing all the aspects of history in all parts of the world in one framework they connect things not normally connected in a history book. It is easy to see from them who were the great men of the Renaissance, what style of architecture was in vogue during the 'Age of Reason', and what was happening in China during the years leading up to the First World War in Europe. They bring to our notice facts such as that while Europe was struggling through the Dark Ages, the magnificent Maya civilization was flourishing in Central America and the T'ang Dynasty was introducing one of the greatest periods in Chinese history.

The charts make no attempt to describe events or to connect the present with the past. A reader cannot trace from them the development of historical ideas or find the causes and results of great movements. For this he must turn to the articles in the main volumes of the encyclopaedia. One of the most important functions of these charts is to act as carefully conducted tours through the volumes. The majority of entries are followed by volume and page references to the relevant articles, and a reader following up all the references given for one period will find that his reading is carrying him over a wide field, and is opening up new and stimulating ideas about history.

MESOPOTAMIA		EGYPT		PALESTINE AND EASTERN MEDITERRANEAN	
4000 B.C.	SUMERIAN settlements of Sumer and Akkad in Tigris and Euphrates valley, c. 4000 B.C. (I, 456)	EGYPTIANS settled in Nile valley (I, 154)			
	First written records (CUNEIFORM WRITING) (IV, 117) First ASSYRIAN settlements, c. 3500 B.C. (I, 41)	Development of AGRICULTURE (VI, 3, 140) Invention of HIEROGLYPHICS (IV, 186) 'Pyramid Texts', c. 4000-3000 B.C. (I, 159)			
3000 B.C.	SUMERIAN cities of Ur, Kish, Erech, and Nippur founded, c. 3000 B.C. (I, 458; XII, 443)	Papyrus first used for writing (IV, 309) Old Kingdom, c. 2800-2200 B.C. (I, 154) PYRAMIDS built, c. 2800-1700 B.C. (XII, 370, 122) SPHINX of Giza, c. 2600 B.C. (XII, 434)	Sumerian		
	Sumer conquered by Sargon of Akkad, c. 2500 B.C. (I, 21)		Assyrian		Troy flourishing as a trading centre, c. 2500 B.C. (I, 476)
2000 B.C.			Egyptian		
2000 B.C.		Middle Kingdom, c. 2000-1700 B.C. (I, 154)			HITTITE kingdoms of Asia Minor, c. 2000-1200 B.C. (I, 228)
	First BABYLONIAN Empire under Hammurabi, c. 1800 B.C.; Hammurabi's Code of Laws (I, 21, 57) Study of ASTRONOMY and mathematics by Babylonians (III, 23; IV, 112; I, 60) Emergence of ASSYRIA as a military power, c. 1650 B.C. (I, 42)	New Kingdom, 1580-525 B.C. (I, 154) Rule of AKHNATEN, c. 1391-1350 B.C. (V, 5) TUTANKHAMEN'S TOMB, c. 1350 B.C. (XII, 461; I, 156) Rule of RAMESES dynasty, c. 1350-1115 B.C. (V, 381) Temple of Karnak built by Rameses II, c. 1300 B.C. (I, 470; V, 381)	Babylonian	Hitite	HEBREW settlements in Canaan, c. 1750 B.C. (I, 217)
1000 B.C.				Phoenician	PHOENICIAN cities of Tyre, Sidon, Ugarit, and Byblos founded, c. 1500-1300 B.C. (I, 363)
				Assyrian	Sack of Troy by Greeks, c. 1200 B.C. (I, 476) Carthage and North African trading settlements founded by Phoenicians, 12th century B.C. (VII, 44)
1000 B.C.					United HEBREW kingdom under DAVID, c. 1010-970 B.C., and SOLOMON, c. 970-930 B.C. (I, 217; V, 126, 420)
	Rule of Ashur-nazir-pal II, king of Assyria, c. 885-860 B.C. (I, 42) Invasions westwards by Iranian tribes; Medes and PERSIANS settle in Persia, 9th century B.C. (I, 353) Greatest period of Assyrian sculpture (XII, 30) Tiglath-Pileser III of Assyria conquers Babylon, c. 732 B.C. (I, 43) Nineveh, Assyria, at the height of its power under Sennacherib, c. 700 B.C. (I, 43) Rule of Ashur-bani-pal, king of Assyria, c. 668-626 B.C. (I, 43) Nineveh destroyed by Medes and BABYLONIANS under Nebuchadnezzar II, 612 B.C.; collapse of Assyrian and rise of Second BABYLONIAN Empire (I, 57, 41)			Hebrew	Israel and Judah become separate independent kingdoms, c. 900 B.C. (I, 217) 'Moabite Stone' (alphabetic writing), 9th century B.C. (I, 364; IV, 22)
600 B.C.				Persian	Israel conquered by ASSYRIA, exile of Israelites, c. 721 B.C. (I, 218, 41)
	Rebuilding of Babylon (XII, 35; I, 60)		Babylonian		Prophecies of ISAIAH, c. 760-690 B.C., and JEREMIAH, c. 650-580 B.C. (V, 238, 243)

CRETE AND GREECE	WESTERN EUROPE	CHINA	INDIA	4000 B.C.
	Neolithic settlers from Asia Minor arrive in Danube valley (I, 378)	CHINESE settlements in Yellow River valley (I, 105)		
MINOAN CIVILIZATION in Crete, c. 3000-1400 B.C. (I, 317)	Neolithic colonists from Mediterranean spread into France and Spain; settlements formed in south Britain (I, 378)	Settlements organized under rule of the Emperors (I, 105)	Growth of cities Harappa and Mohenjodaro in Indus valley, c. 3000-2500 B.C. (I, 238)	3000 B.C.
	Primitive LAKE DWELLINGS in Switzerland and Germany, c. 2500 B.C. (I, 283)	Astronomers calculate the year of 365½ days, c. 2300 B.C. (III, 23)		
First palace of KNOSSOS built, c. 2000 B.C. (XII, 229) Development of Minoan sea-trade (IV, 98)	Bronze Age invasions of Britain, c. 1900 B.C. (I, 378)	Beginnings of SILK INDUSTRY (VII, 394) Invention of technique of LACQUER (XII, 232, 72) Rule of Shang dynasty, c. 1766-1122 B.C. (I, 107)		2000 B.C.
Beginning of MYCENAEAN CIVILIZATION, c. 1500 B.C. (I, 329) Invasions of Greece by Dorians, c. 12th century B.C. (I, 204)	British prehistoric monuments at STONEHENGE and AVEBURY, c. 1900-1500 B.C. (I, 455, 399, 52; III, 66)	First Chinese writing (I, 107; IV, 94)	ARYAN invasions of INDIA from central Asia, c. 1500 B.C. (I, 38, 239) NATURE WORSHIP (I, 336, 239): <i>Rig-Veda</i> hymns written in SANSKRIT, c. 1500-1000 B.C. (I, 419; IV, 393)	
Greek 'Geometric' vase painting, 12th-8th centuries B.C. (XII, 181)		Rule of Chou dynasty begins, c. 1122 B.C. (I, 107)		
Greek ALPHABET evolved, c. 1000-800 B.C. (IV, 22, 117)	Iron Age settlements in Europe, c. 1000 B.C. (I, 379)	<i>Book of Songs</i> , first Chinese poetry, c. 1000-500 B.C. (XII, 74)	Growth of HINDUISM, c. 1000 B.C. (I, 224) Development of CASTE system (I, 95)	1000 B.C.
	Etruscan settlements in Italy, c. 900-800 B.C. (I, 263; XII, 142)			
OLYMPIC GAMES recorded, 776 B.C. (IX, 347) First Greek coins struck, c. 700 B.C. (VII, 121; XII, 185) HOMERIC LITERATURE, c. 700 B.C. (XII, 194; V, 228)	Traditional date for foundation of ROME, 753 B.C. (III, 381)			600 B.C.

Minoan

Mycenaean

Greek

Roman

Indian (Pre-Aryan)

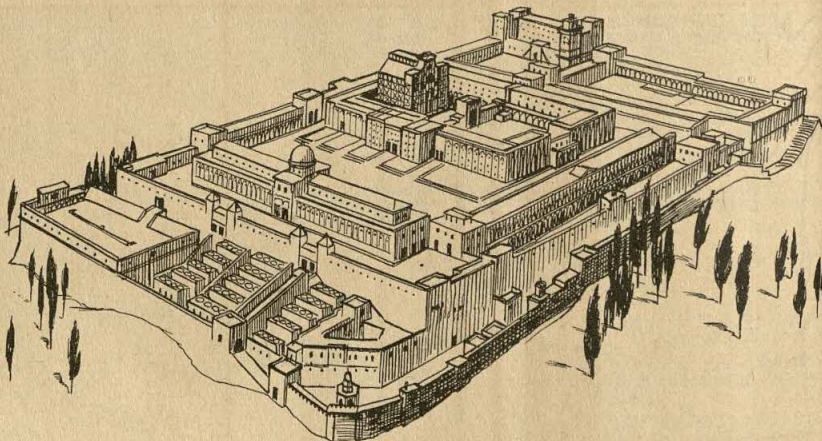
Chinese
Indian (Aryan)



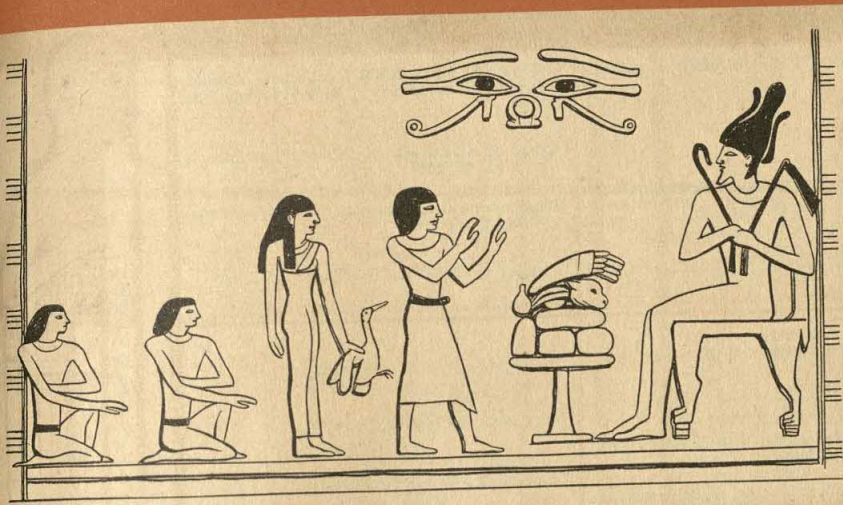
SUMERIANS (from a mosaic)



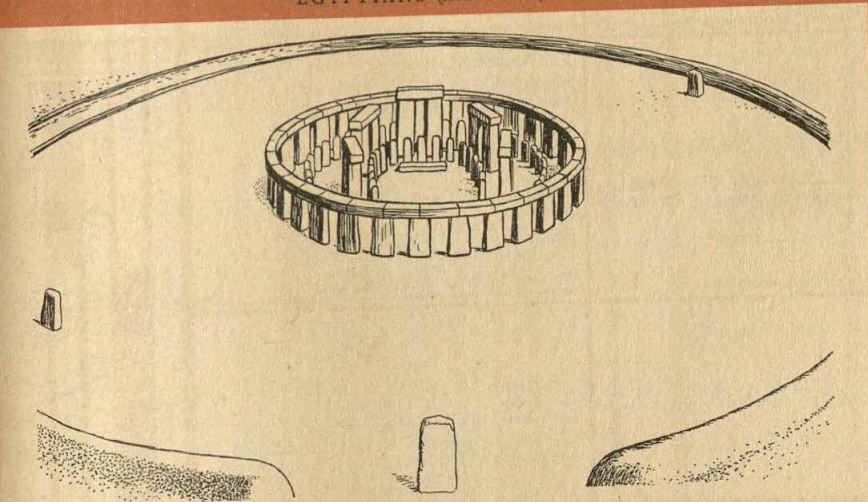
THE MINOAN PALACE OF KNOSSOS (reconstruction)



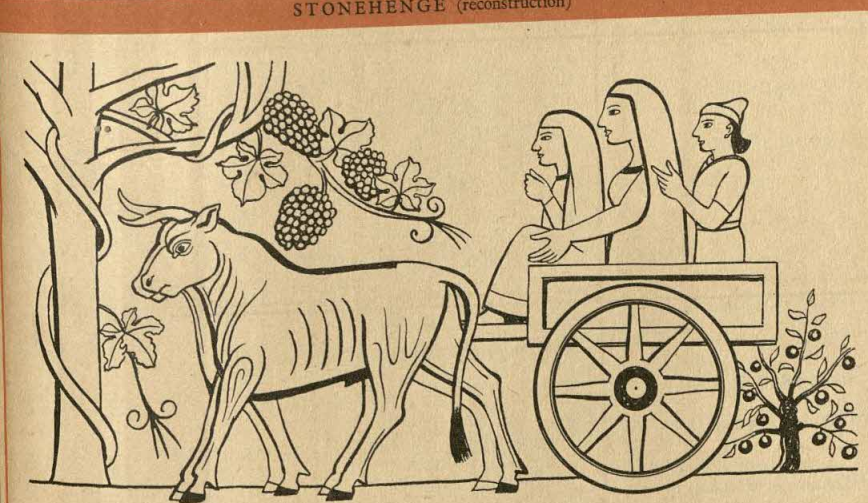
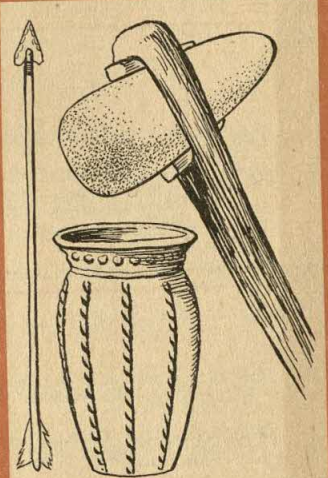
KING SOLOMON'S TEMPLE (reconstruction)



EGYPTIANS (from a relief)



STONEHENGE (reconstruction)



ASSYRIANS (from a relief)



WORLD EVENTS AND
GROWTH OF SOCIETYRELIGION AND
THOUGHT

600

B.C.

SOLON's code of law and Council of Four Hundred in Athens, 593 B.C. (V, 421; I, 206)

Hebrew SACRED BOOKS collected. Rebuilding of the Temple at JERUSALEM (I, 421, 218)

Rise of PERSIA (I, 353); conquests of CYRUS in Asia Minor (V, 116); end of Second BABYLONIAN Empire (I, 57); return of Jews from exile, 539 B.C. (I, 218)

Spread of BUDDHISM and JAIN religion in India (I, 81, 266)

Age of the Tyrants in Greece (I, 205)

Religious and scientific speculations of PYTHAGORAS (V, 376)

ROME becomes a republic, 509 B.C. (I, 409; III, 381)

'Classics' of CONFUCIUS (I, 113; V, 100)

Soldier-state of SPARTA (I, 449)

500

B.C.

Defeat of Persia by Greeks: battles of Marathon, 490 B.C. (V, 123); Thermopylae, 480 B.C. (I, 450); Salamis, 480 B.C. (X, 394)

The Greek 'Sophists' (X, 475)

Conflict between Patricians and Plebeians in Rome; the Twelve Tables of LAW, 451-448 B.C. (I, 410; X, 235)

Teaching of SOCRATES (V, 419)

Great age of Athens under PERICLES; outbreak of Peloponnesian War, 431 B.C. (V, 357)

Celtic migrations into west and south Europe (I, 97)

400

B.C.

Battle of Chaeronea, 338; defeat of Greeks by Philip of Macedon (V, 133)

The Academy founded at Athens (V, 366)

Spread of Greek civilization under ALEXANDER THE GREAT; Greek conquests of Syria, Egypt, and Persia, 334-330 B.C.; Alexander's invasion of India, 327 B.C. (V, 9)

The Republic of PLATO (V, 366)

Rule of PTOLEMY I in Egypt, 367-283 B.C.; rise of Alexandria (V, 372)

DIOGENES and the 'Cynics' (V, 139)

Ethics and Politics of ARISTOTLE (V, 17)

Philosophy of EPICURUS (V, 158)

Mauryan Empire set up in INDIA (I, 240)

Hebrew LAW collected (X, 234)

300

B.C.

First and second Punic Wars between Carthage and Rome, 264-202 B.C.; defeat of HANNIBAL (V, 208); expansion of Roman power (I, 410; VII, 443)

ZENO and the 'Stoics' (V, 496)

GLADIATORIAL GAMES instituted at Rome (IX, 255)

LIBRARY and MUSEUM established at Alexandria (IV, 224; X, 475)

Rule of ASOKA in India, c. 274-232 B.C. (V, 20)

Rule of Huang Ti in China (I, 107)

200

B.C.

100

B.C.

Roman conquest of Greece (I, 210)

JULIUS CAESAR's conquest of Gaul, c. 58-50 B.C., and invasions of Britain (V, 252)

Civil War in Rome; defeat of POMPEY by JULIUS CAESAR, 48 B.C. (I, 410; V, 367, 252)

Murder of Caesar, 44 B.C. (V, 252)

Octavian defeats MARK ANTONY at Actium (31 B.C.) and becomes AUGUSTUS CAESAR (V, 24, 294)

A.D.
1

PERSIAN CIVILIZATION (I, 353)

GREEK CIVILIZATION (I, 202)

ROMAN CIVILIZATION (I, 408)

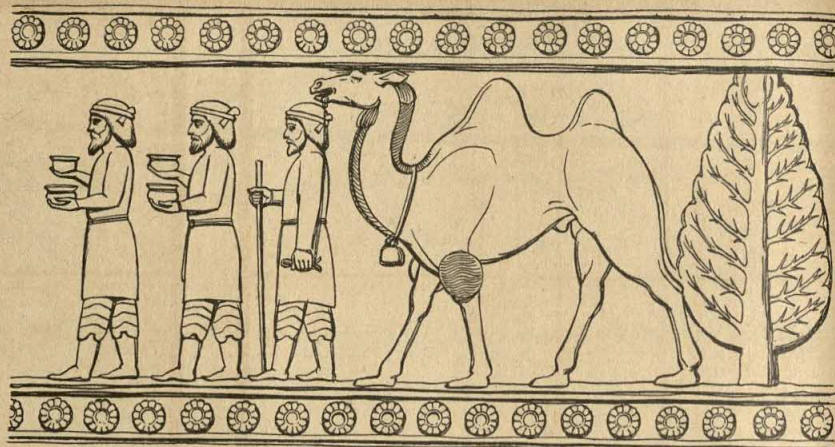
Mauryan Empire of INDIA (I, 240)

Chou Dynasty

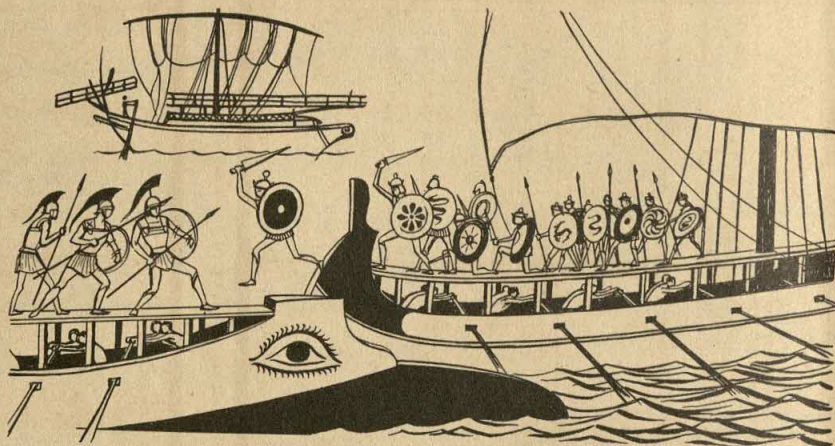
CHINESE CIVILIZATION (I, 107)

Han Dynasty

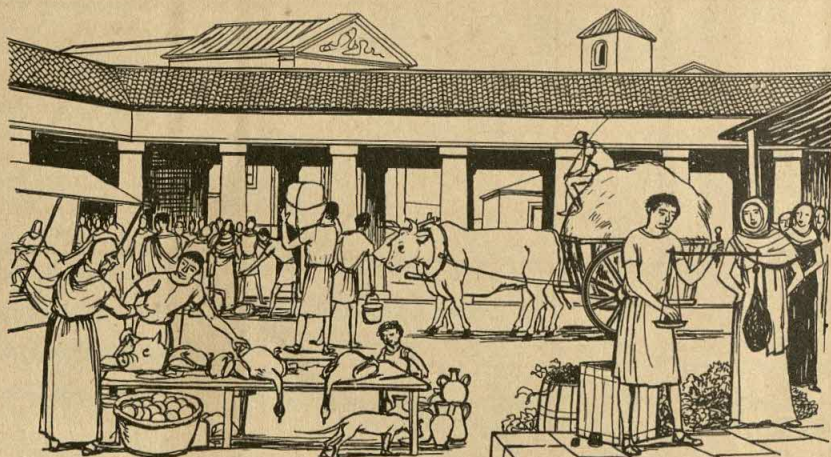
GREAT LIVES	INVENTION AND DISCOVERY	ARTS	600 B.C.
GAUTAMA CYRUS THE GREAT		First dramatic festival at Athens, 534 B.C. (XII, 185) Palace of Persepolis, Persia (XII, 337; I, 354; XI, 347) Greek Black Figure pottery (XII, 182) Greek Red Figure pottery, late 6th to early 5th centuries B.C. (XII, 182)	500 B.C.
CONFUCIUS	HIPPOCRATES the 'Father of Medicine' (V, 223; XI, 302) Athenian naval power based on 'Trireme' galleys (IV, 99; X, 394)	Parthenon built at Athens, 447-432 B.C. (XII, 3) Sculpture of Myron, Phidias, and Polyclitus (XII, 184) <i>History</i> , Heroditus (XII, 191) GREEK DRAMA of AESCHYLUS, SOPHOCLES, EURIPIDES, and ARISTOPHANES (XII, 185; V, 4, 422, 160, 16) <i>History of the Peloponnesian War</i> , THUCYDIDES (V, 445) SANSKRIT grammar composed (IV, 199)	400 B.C.
DARIUS I	Voyages of PYTHEAS (V, 376)	Sculpture of PRAXITELES (V, 371) <i>Philippics</i> , DEMOSTHENES (V, 132)	300 B.C.
HERICLES	EUCLID's geometry (V, 160)	Mausoleum built at Halicarnassus, c. 350 B.C. (XII, 475) Temple of Artemis built at Ephesus, c. 350-300 B.C. (XII, 474)	200 B.C.
SOCRATES	APPIAN WAY started, 312 B.C. (IV, 29)	<i>Ramayana</i> , Indian EPIC poem (XII, 133) <i>Idylls</i> , Theocritus (XII, 334) Asoka columns erected in India (I, 240)	100 B.C.
PLATO	First LIGHTHOUSE built at Alexandria, c. 285 B.C. (IV, 230) GREAT WALL OF CHINA and first great Chinese ROADS built (III, 202; IV, 365) ARCHIMEDES' PUMP (V, 16; VIII, 382)	VICTORY OF SAMOTHRACE, c. 200 B.C. (XII, 472) Latin COMEDIES of Plautus and Terence (XII, 90) VENUS DE MILO, c. 150 B.C. (XII, 467)	100 B.C.
ARISTOTLE	PAPER invented in China (IV, 309)	<i>Concerning the Nature of Things</i> , Lucretius (V, 158) <i>The Aeneid</i> , VIRGIL (V, 461; XII, 134) <i>Odes</i> , HORACE (V, 230; XII, 307) <i>History of Rome</i> , LIVY (V, 279; XII, 191) <i>Metamorphoses</i> , OVID (V, 342)	A.D. 1
ALEXANDER THE GREAT	CALENDAR reformed at Rome, 46 B.C. (III, 68)	Altar of Peace erected by Augustus Caesar, 13-9 B.C. (XII, 381)	7
ASOKA			
HANNIBAL			
CICERO			
JULIUS CAESAR			
MARK ANTONY			
AUGUSTUS CAESAR			



PERSIANS (from a relief)



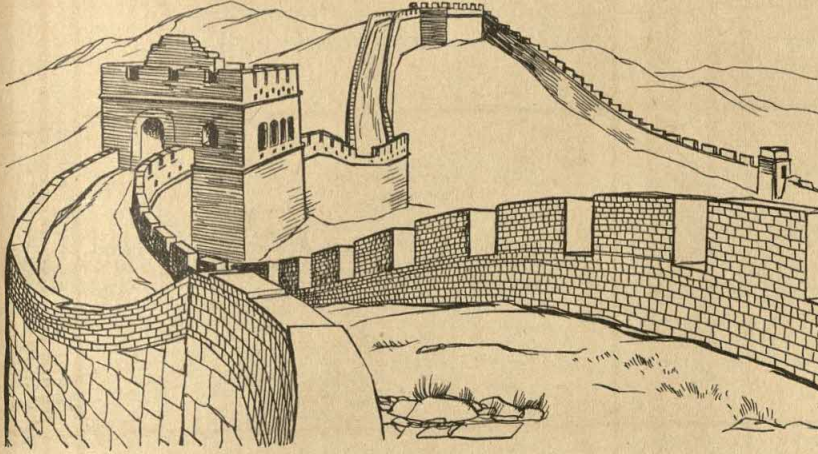
GREEK WARSHIPS



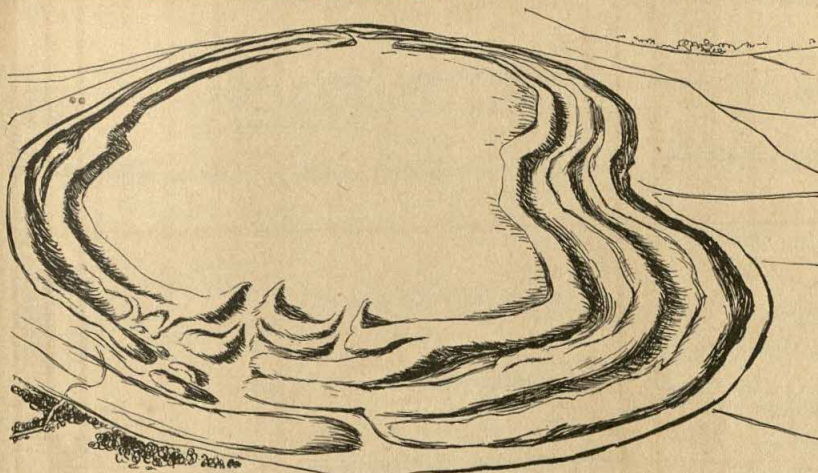
A ROMAN MARKET



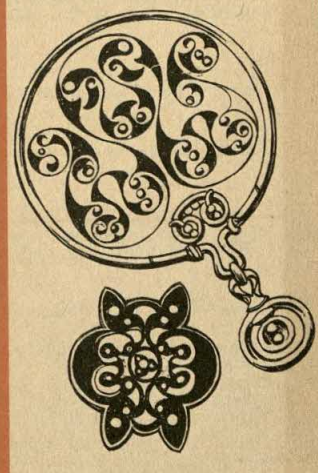
RUINS OF THE PARTHENON, ATHENS



THE GREAT WALL OF CHINA



AN IRON AGE FORTIFIED CAMP



WORLD EVENTS AND
GROWTH OF SOCIETY

RELIGION AND THOUGHT

A.D. 1	<p>Roman conquest of Britain; BOADICEA's revolt, A.D. 61 (I, 77; V, 48)</p> <p>POMPEII destroyed by eruption of VESUVIUS, A.D. 79 (XII, 348; III, 464)</p>	<p>Teaching and crucifixion of JESUS OF NAZARETH, A.D. 29-30 (I, 271)</p> <p>Conversion and missionary journeys of St. PAUL (V, 352)</p> <p>St. Mark's gospel, c. A.D. 65 (I, 421)</p> <p>Persecution of Christians at Rome by NERO (V, 334)</p> <p>Gospels of SS. Luke, Matthew, and John (I, 421)</p> <p>Spread of BUDDHISM to China (I, 114, 81)</p>
A.D. 100	<p>Roman Empire reaches its greatest extent under TRAJAN (V, 450)</p> <p>Development of Roman LAW by the great jurists (X, 235)</p> <p>HADRIAN's wall built in Britain (V, 205)</p>	<p>Beginning of Christian creed (later called Apostles' Creed) (I, 116)</p> <p><i>Meditations</i> of MARCUS AURELIUS (V, 292)</p> <p>Rise of COPTIC CHURCH at Alexandria (I, 130)</p> <p>PTOLEMY's system of ASTRONOMY (V, 373; III, 23)</p>
A.D. 200		<p>First collection of Jewish law and commentary (later to form the <i>Talmud</i>) (I, 275)</p>
A.D. 300	<p>DIOCLETIAN's division and reorganization of Roman Empire; his persecution of the Christians, A.D. 303 (V, 138)</p> <p>Christianity recognized by CONSTANTINE as official religion of Roman Empire, A.D. 313 (V, 104)</p> <p>CONSTANTINOPLE founded as capital of Empire in the East, A.D. 330 (I, 88; III, 239)</p> <p>First hospital for the poor built in Rome, A.D. 380 (X, 348)</p>	<p>Church of the Nativity built at Bethlehem (I, 116)</p> <p>Nicene Creed adopted at Council of Nicaea, A.D. 325 (V, 22)</p> <p>First Christian monastic communities (I, 324)</p> <p>Athanasian Creed formulated, possibly by St. Ambrose, c. 380-90 (V, 22)</p>
A.D. 400	<p>Western Europe overrun by GOTHs, VANDALS, and FRANKS (I, 202, 483, 184)</p> <p>Invasion of Europe by HUNS; ATILA defeated at Châlons, A.D. 451 (I, 234; V, 22)</p> <p>Capture and sack of Rome by Alaric, A.D. 410, and by the Vandals, A.D. 455 (I, 202, 483); withdrawal of Roman legions from Britain, 410-50 (I, 77)</p> <p>Anglo-Saxon conquest of England begun (I, 77)</p> <p>End of Roman Empire in the West, A.D. 476 (I, 412)</p>	<p>St. AUGUSTINE's <i>City of God</i> (V, 22)</p> <p>St. PATRICK's mission to Ireland (V, 351)</p> <p>Rise of NESTORIAN CHURCH in Asia (I, 340)</p>
A.D. 500		

Spread of CHRISTIAN CHURCH in Europe (I, 115); growth of monasticism (I, 324, 38)

ROMAN CIVILIZATION (I, 408)

Barbarian Invasions of Western Europe (I, 202, 234, 483)

GREAT LIVES	INVENTION AND DISCOVERY	ARTS	A.D. 1
JESUS OF NAZARETH (I, 271)	Pont du Gard built (IV, 60)	Latin dramas of Seneca (XII, 107)	A.D. 100
S. PETER	Three-year rotation of crops and long plough introduced to Britain by Romans (VI, 388, 5)	PLUTARCH's <i>Lives</i> (V, 367; XII, 43)	
S. PAUL		COLOSSEUM, Rome, c. A.D. 80 (XII, 88) <i>Annals and Histories</i> , Tacitus (XII, 192) Buddhist Stūpa at Sānchi, India (XII, 206)	
TRAJAN	Earthquake-recording instrument invented in China, A.D. 136 (III, 140)	TRAJAN'S COLUMN, Rome (XII, 458)	A.D. 200
HADRIAN		Pantheon, Rome (XII, 379)	
MARCUS AURELIUS	Development of clinker-built ships (IV, 333)		
DIOCLETIAN		ROMAN BATHS of Caracalla (IX, 411)	A.D. 300
CONSTANTINE THE GREAT	First codices (parchment manuscripts in book-form) (IV, 51)	Early Christian catacombs (XII, 118)	
St. ATHANASIUS		DIOCLETIAN's palace at Split (V, 138)	
St. AUGUSTINE		Palace at Ctesiphon, Persia (XII, 338)	A.D. 400
		Arch of Constantine, Rome (XII, 380)	
		PLAINSONG developed by St. Ambrose (XII, 344)	
		Christian churches built in Rome (XII, 120)	A.D. 500
		Early Christian MOSAICS at Ravenna and Rome (XII, 120, 280)	

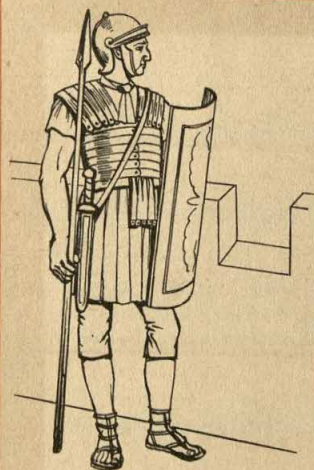
CHINESE CIVILIZATION Han dynasty (I, 107)

Spread of BUDDHISM in the East (I, 81)

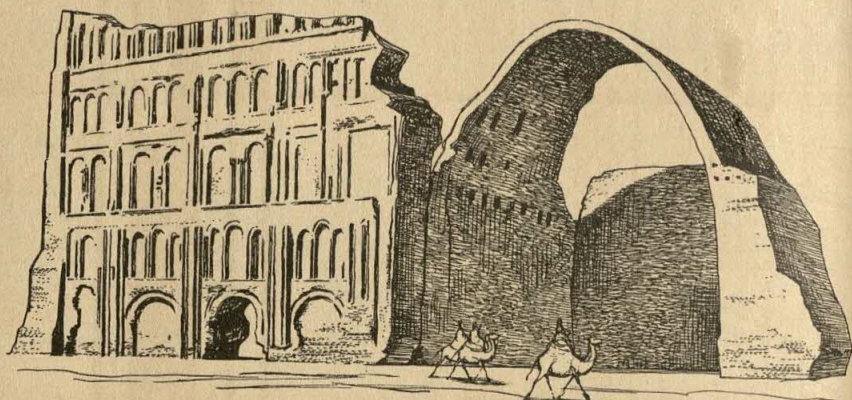
PERSIAN CIVILIZATION 'Sassanid' Empire (I, 354)

'OLD' MAYA CIVILIZATION of North and Central America (I, 300)

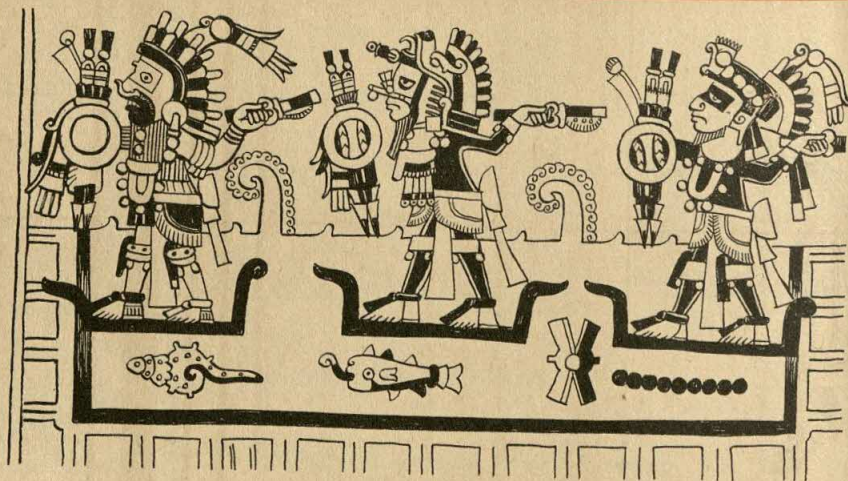
INDIAN CIVILIZATION 'Gupta' Empire (I, 240)



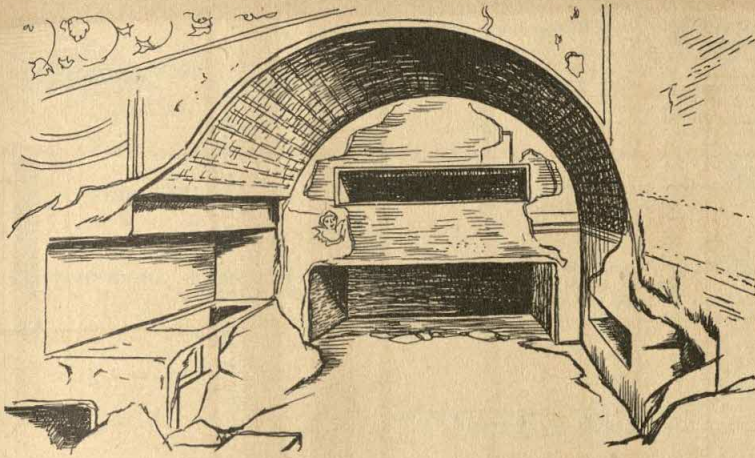
A ROMAN CITY



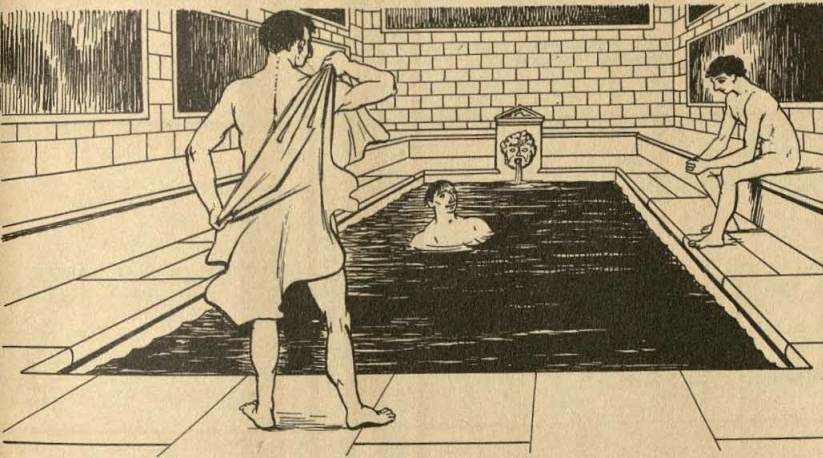
RUINS OF THE PALACE AT CTESIPHON, PERSIA



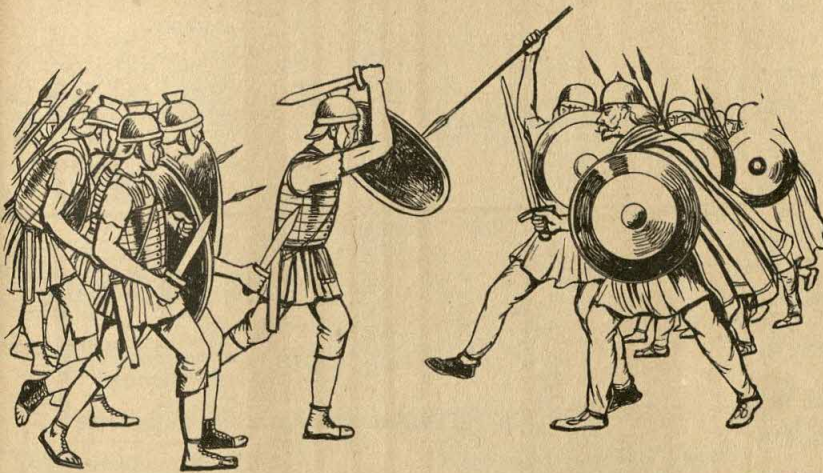
ANCIENT MEXICAN WRITING



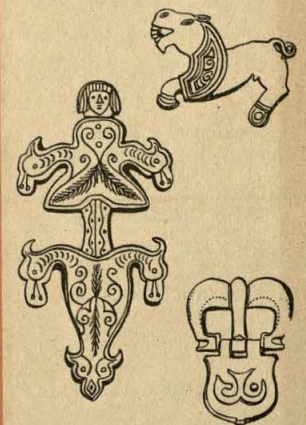
PART OF AN EARLY CHRISTIAN CATACOMB



A ROMAN BATH IN BRITAIN



ROMANS FIGHTING GOTHs



WORLD EVENTS AND GROWTH OF SOCIETY

WORLD

BRITAIN

GREAT LIVES

500

CONSTANTINOPLE the centre of the civilized world (III, 240; VII, 444)
 Death of Theodoric, 526; end of power of the GOTHs in Italy (I, 202)

Gaels from Ireland enter Scotland (I, 431)

JUSTINIAN's code of LAW. His defence of the Roman Empire against barbarians (V, 253; X, 235)

St. Columba brings Christianity to the SCOTs, 563 (I, 431)

St. Augustine's mission sent to England by St. GREGORY THE GREAT, 597 (V, 200; I, 124)

600

MOHAMMED's flight to Medina, 622; rise of ISLAM (V, 312; I, 259)

Celtic Christian mission arrives in Northumbria, 635 (I, 124)

Moslem invasions of Persia and Syria (I, 259, 29)

Earliest Anglo-Saxon codes of LAW (X, 231)

PARISHES traditionally organized by Archbishop Theodore (X, 310)

700

Moslem invasions of North Africa, Spain, and southern France (I, 262, 326)

Collapse of Gothic power in Spain; rise of Moorish (Moslem) kingdoms; MOORS defeated at Poitiers, 732 (I, 202, 327)

Papal states established in Italy, 756 (I, 408)

CHARLEMAGNE's wars against barbarians. Charlemagne crowned HOLY ROMAN EMPEROR, 800 (V, 81; I, 230)

First Viking raid on Britain, 787 (IV, 476; I, 77)

800

Widespread VIKING raids in Europe (IV, 476)

Moslem (Saracen) invasions of Sicily and of southern Italy (I, 263)

Kiev and Novgorod combined as first kingdom of RUSSIA (I, 414)

Magyar raids in Europe (I, 233)

Danish invasion of Britain; defeat in Wessex by King ALFRED, 878 (V, 10; I, 137, 77)

900

Vikings settle in Normandy, 911 (I, 345)

Kingdom of POLAND established (I, 368)

Stephen I becomes king of Hungary, 997 (I, 233)

Otto I revives the power of HOLY ROMAN EMPEROR (I, 230)

BYZANTINE EMPIRE attacked by Seljuk Turks (I, 88)

Canute of Denmark crowned king of England, 1016 (IV, 476)

Harold defeated at HASTINGS by WILLIAM I, 1066 (X, 182; V, 485)

Sassanid Empire of PERSIA (I, 354)

St. BENEDICT

JUSTINIAN

St. GREGORY THE GREAT

MOHAMMED

BEDE

HAROUN AL-RASCHID

CHARLEMAGNE

ALFRED

WILLIAM I

Spread of CHRISTIAN CHURCH in Europe (I, 115)

BYZANTINE EMPIRE (I, 88)

Spread of ISLAM (I, 259)

Growth of FEUDAL SYSTEM (X, 151)

INVENTION AND RELIGION AND DISCOVERY THOUGHT

ARTS

SILK manufacture introduced to Europe (VII, 394)

Monastic rule of St. BENE-DICT, 527 (I, 325; V, 38)

St. GREGORY THE GREAT elected Pope, 590 (V, 200)

The *Koran* (I, 422)

English Church recognizes Pope's authority at Synod of Whitby, 664 (I, 124)

First English missionaries to the Continent (I, 124)

First known printed book produced in China, 868 (IV, 333)

Salerno school of medicine founded (X, 476)

GREENLAND discovered by Eric the Red (III, 205; I, 345)

North America discovered by Leif ERICSSON (V, 159)

PAPER introduced to Europe (IV, 309)

Monastery of Cluny founded, 909 (I, 325)

First Moslem university founded at Cairo, c. 970 (X, 476)

Conversion to Christianity of POLAND, HUNGARY, and RUSSIA (I, 368, 233, 413)

Final split between ROMAN and ORTHODOX EAST-ERN Churches (I, 407, 348)

Sui

CHINESE CIVILIZATION (I, 108)
T'ang

Sung

OLD MAYA CIVILIZATION of North and Central America (I, 300)

MEXICAN Toltec Empire (I, 310)

Civilizations of ancient PERU (I, 357)

First Golden Age of BYZANTINE ART, 6th to 7th centuries (XII, 52)

Consolations of Philosophy, Boethius (XII, 239)

ST. SOPHIA, Constantinople, completed, 538 (XII, 402)

Mu'allaqat, Arabic poems (XII, 19)

PLAINSONG collected by St. Gregory the Great (XII, 344)

MOSAICS at Ravenna and Constantinople (XII, 279)

Origins or Etymologies, ENCYCLOPAEDIA of Isidore of Seville (XII, 129)

Song of Creation, Caedmon (XII, 131)

Lindisfarne Gospels (XII, 46)

Anglo-Saxon CROSSES (XII, 96)

Omayyid MOSQUE, Damascus, 708 (XII, 281)

BEOWULF, EPIC poem (XII, 42, 133)

Irish ILLUMINATED MANUSCRIPTS (XII, 200)

Ecclesiastical History, BEDE (XII, 192; V, 35)

Revival of art and learning under CHARLEMAGNE (V, 81; XII, 254)

Ajantā and Ellora temples, India (XII, 208)

Great MOSQUE of Cordova, Spain, c. 848 (XII, 276)

Start of *Anglo-Saxon Chronicle* (XII, 192)

Second Golden Age of BYZANTINE ART, 9th to 12th centuries (XII, 52)

Works of Arab poet al-Mutanabbi (XII, 19)

Works of Persian poet Firdawsi (XII, 340)

Rubaiyat of Omar KHAYYAM (V, 259; XII, 341)

500

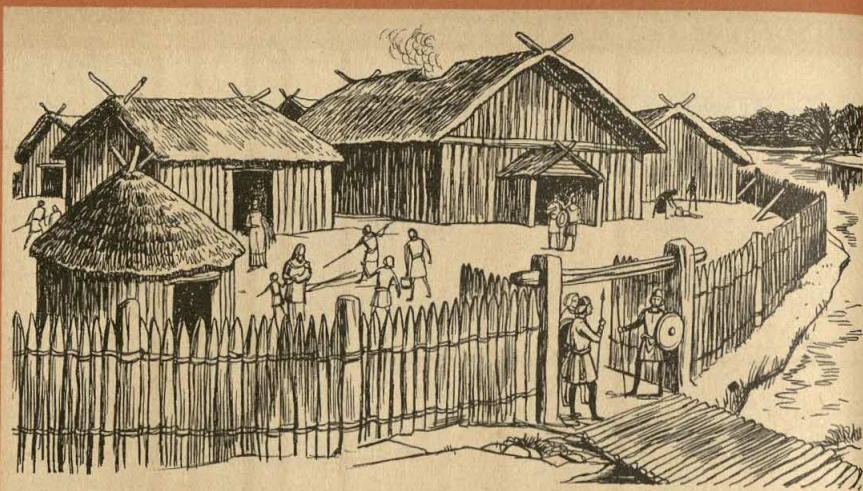
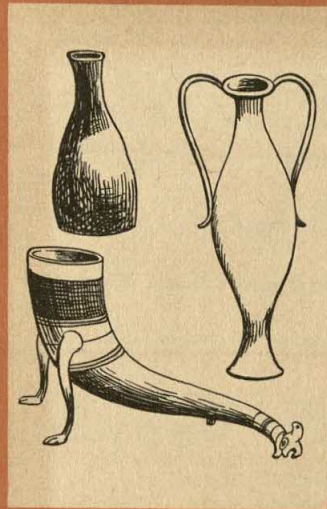
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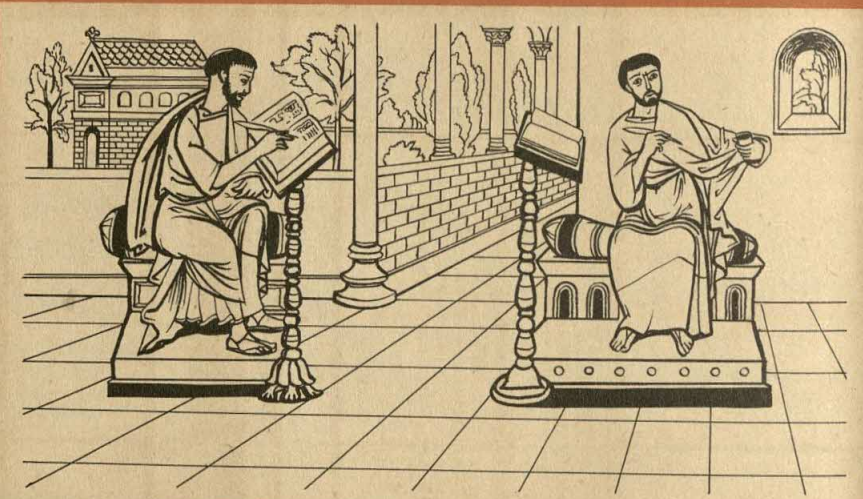
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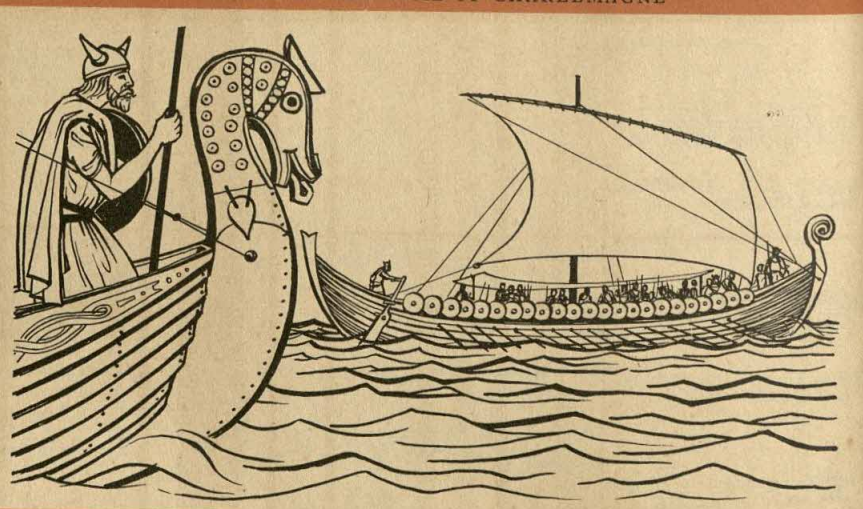
1066



A SAXON HOMESTEAD



MONKS OF THE TIME OF CHARLEMAGNE



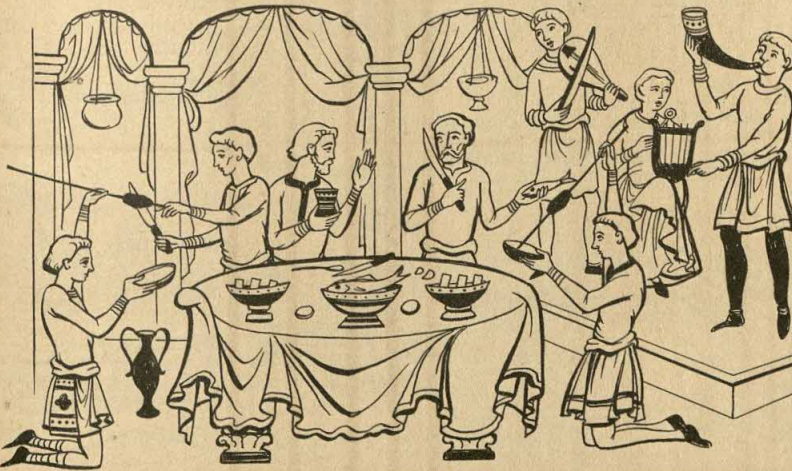
VIKING SHIPS



A BYZANTINE CHURCH



WAR IN THE DARK AGES



AN ANGLO-SAXON FEAST



WORLD EVENTS AND GROWTH OF SOCIETY

GREAT LIVES

WORLD

BRITAIN

1066

First CRUSADE begins, 1095 (I, 131)

Order of KNIGHTS Templar founded, 1118 (I, 281)

Second CRUSADE begins, 1147 (I, 132)

WILLIAM I crowned king of England, 1066 (V, 485)

DOMESDAY BOOK (X, 134)

First CRAFT GUILDS (VII, 143)

Beginning of quarrel between King and Church; exile of St. ANSELM (V, 14)

Widespread reforms introduced in Scotland by DAVID I (V, 126)

1150

Struggle between Pope and FREDERICK BARBAROSSA, Holy Roman Emperor, for control of Italy; defeat of Barbarossa at Legnano, 1176 (V, 171)

Third CRUSADE against SALADIN begins, 1189 (I, 132; V, 400)

MONGOL Empire founded by GENGHIS KHAN (I, 323; V, 186)

Rise of CITY STATES of Italy and N. Europe (X, 88)

Fourth CRUSADE, 1201 (I, 132, 88)

TARTAR invasions of Europe (I, 467)

German HANSEATIC LEAGUE founded (VII, 220)

HENRY II and English Common LAW (V, 218; X, 232); beginning of trial by JURY and ASSIZE COURTS (X, 220; 48)

Quarrel between King and Church; murder of BECKET, 1170 (V, 34)

MAGNA CARTA sealed by King John, 1215 (X, 257)

1250

Unsuccessful CRUSADES (1248, 1270) led by LOUIS IX of France (V, 282)

Conquest of China by Mongols under KUBLAI KHAN, 1279 (V, 263)

Struggle between Guelfs (Church) and Ghibellines (Emperor) in Italy (V, 120)

Rise of TURKISH Ottoman Empire (I, 478)

Outbreak of HUNDRED YEARS WAR, 1336. English victory at Crécy, 1346 (X, 200)

Expansion of English WOOL trade under MERCHANTS OF THE STAPLE (VII, 479, 291)

Simon de MONTFORT leads barons against Henry III; battle of Lewes, 1264; beginning of PARLIAMENT (V, 317; X, 312)

Conquest of Wales by EDWARD I, 1284 (V, 151)

Edward I's invasion of Scotland resisted by WALLACE, 1297 (V, 466, 151)

Scots under BRUCE defeat English at Bannockburn, 1314 (V, 59)

Outbreak of Black Death, 1348 (XI, 143)

1350

Defeat of TARTAR 'Golden Horde' by Russians (I, 467)

Conquests of TAMBURLAINE (V, 438)

Henry V defeats French at Agincourt, 1415 (X, 200)

First European settlements in N. Africa established by Portuguese (V, 222)

JOAN OF ARC raises siege of Orleans, 1429; English finally defeated in France, 1453 (V, 246; X, 201)

TURKS invade Eastern Empire; fall of Constantinople, 1453 (I, 89, 478)

Growth of MERCHANT ADVENTURERS' organization (VII, 288)

Peasants' Revolt led by Wat TYLER, 1381 (V, 453)

Welsh rebellion led by GLENDOWER, 1400 (V, 193)

New MAYA (I, 300)

Sung

WILLIAM I

DAVID I

ABELARD

CHINESE CIVILIZATION (I, 108)

Yuan

HENRY II

BECKET

FREDERICK BARBAROSSA

FRANCIS OF ASSISI

GENGHIS KHAN

FEUDAL SYSTEM in Europe (X, 151)

Growth of TRADE and BANKING. (VII, 444, 461, 31)

INCA (I, 235)

Ming

CHAUCE

WYCLIFFE

JOAN OF ARC

INVENTION AND
DISCOVERYRELIGION AND
THOUGHT

ARTS

1066

BAYEUX TAPESTRY (XII, 41)

Early EPIC POETRY (XII, 133):
CHANSON DE ROLAND (XII, 62)
Mio Cid (XII, 433; V, 93)

Icelandic SAGAS first written down (XII, 398)

1150

Troubadours (XII, 425)

Gothic Cathedrals (XII, 78, 174):
CHARTRES CATHEDRAL (XII, 64)*Romance of the Rose* (XII, 384, 7)Japanese *No* Plays (XII, 227)

1250

Beginning of MUSICAL NOTATION (XII,
286)DIVINE COMEDY, DANTE (XII, 105; V,
120)

Paintings of GIOTTO (V, 190; XII, 153)

MIRACLE PLAYS (XII, 260)

1350

Beginning of modern English Literature (XII,
131):
CANTERBURY TALES, CHAUCER (XII,
57; V, 87)
Piers Plowman, Langland (XII, 8)
RENAISSANCE begins in Italy (I, 399; XII,
213, 218):
Decameron, BOCCACCIO (V, 48)
Sonnets of PETRARCH (V, 361; XII, 428)
BRUNELLESCHI, ALBERTI, architects
(V, 61, 7)
DONATELLO, sculptor (V, 141)
Fra ANGELICO, MASACCIO, painters
(V, 13, 300)
SIENESE PAINTING (XII, 419)
RUSSIAN ART (XII, 393):
Novgorod School (XII, opp. p. 400)
GERMAN ART (XII, 176):
Cologne School of painters
FLEMISH ART (XII, 149):
Van EYCK, painter (V, 161)

1453

Second Golden Age of BYZANTINE ART (XII, 53)

ROMANESQUE ART (XII, 384)

ROMANCE LITERATURE (XII, 383)

GOTHIC ART (XII, 174)

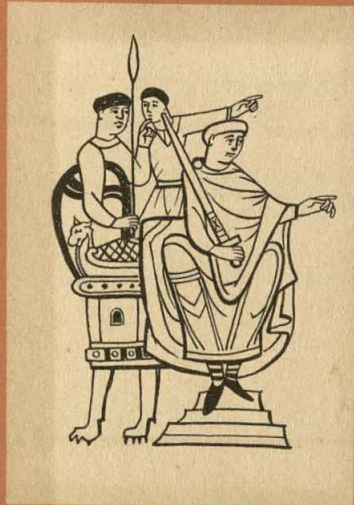
FLORENTINE PAINTING (XII, 153)

Cistercian order founded, 1098 (I, 325)

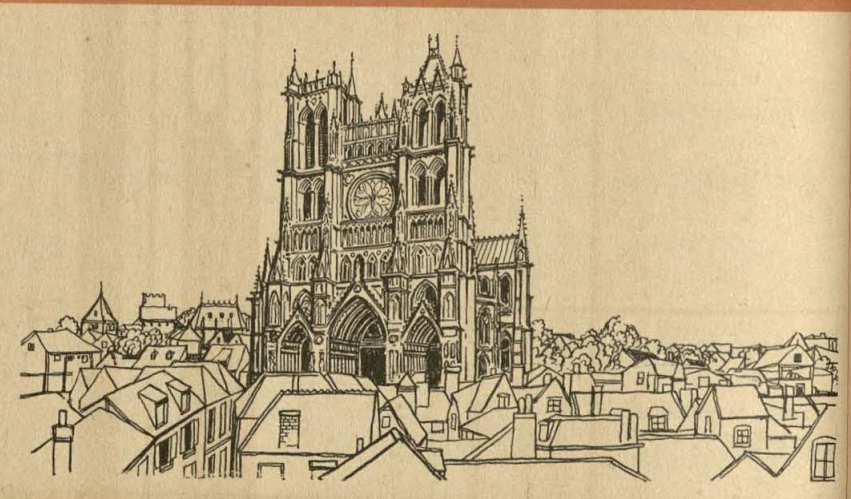
Monastery of Clairvaux founded by St.
BERNARD, 1115 (V, 41)Teaching of ABELARD condemned by
Church (V, 1)COMPASS and CHARTS in
use for NAVIGATION (IV,
109, 92, 287)Development of European UNIVER-
SITIES; OXFORD and CAM-
BRIDGE founded (X, 475, 305, 67)Orders of St. FRANCIS (1209) and St.
DOMINIC (1215) founded (I, 187;
V, 168, 141)Aristotle introduced to the West by
translations of AVERROES (V, 26)INQUISITION set up by Church,
1233 (I, 254)Travels of MARCO POLO (V,
291)Teaching of Roger BACON condemned
by Church, 1278 (V, 30)Philosophy of St. Thomas AQUINAS
(V, 14)

Philosophy of DUNS SCOTUS (V, 148)

Long-bow successfully used by
English at Crécy, 1346 (X,
490)NAVAL GUNS first mounted
in ships (X, 293)Church teaching attacked by WY-
CLIFFE (V, 493)Protestant teaching of John Huss con-
demned by the Church; burning of
Huss, 1415 (I, 328)Great Encyclopaedia of China, 1408 (I,
112)Colleges founded at Winchester (1382)
and Eton (1440) (X, 139, 351)Movable type invented for
PRINTING, c. 1450 (IV,
333)Greek scholars flee to Italy from Con-
stantinople (I, 401)



A NORMAN HALL



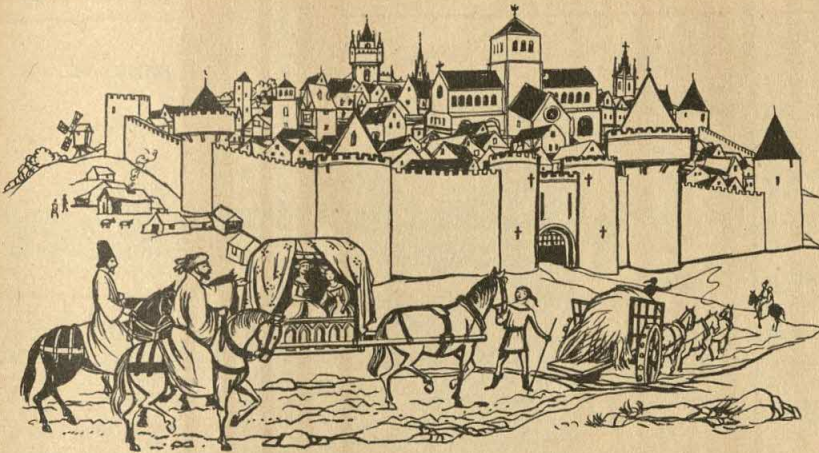
A FRENCH GOTHIC CATHEDRAL



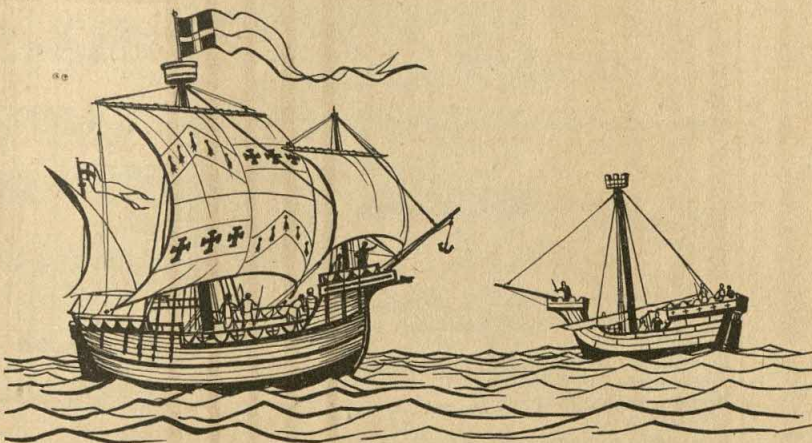
A FLEMISH MERCHANT'S HOUSE



A NORMAN CASTLE



A MEDIEVAL TOWN



MEDIEVAL SHIPS



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POLITICAL AND SOCIAL EVENTS

WORLD

BRITAIN

GREAT LIVES

1453

The Netherlands become part of Hapsburg Empire, 1477 (I, 68)

Spain united under FERDINAND AND ISABELLA, 1479. Conquest of Moorish kingdom of GRANADA (III, 195; V, 165)

Spanish INQUISITION set up under Torquemada, 1483 (I, 254)

Struggle between France and Spain for control of Italy (V, 51)

Wars of the Roses, 1455-85 (X, 153)

Breakdown of CRAFT GUILD system; rise of CITY COMPANIES (VII, 144, 105)

Printing press set up by CAXTON at Westminster, 1476 (V, 76)

Accession of Henry VII begins Tudor monarchy, 1485 (V, 218)

Court of STAR CHAMBER reorganized, 1487 (X, 431)

FERDINAND AND ISABELLA

MEDICI FAMILY

BORGIA FAMILY

SAVONAROLA

COLUMBUS

1500

LUTHER launches the REFORMATION at Wittenberg, 1517 (V, 285; I, 287, 395)

CHARLES V elected Emperor, 1519 (V, 85)

Mogul Empire established in INDIA, 1526 (I, 242)

Conquest of Mexico by CORTÉS (1519) and of Peru by PIZARRO (1533) (V, 109, 365)

Turkish Ottoman Empire at height of power under SULEIMAN THE MAGNIFICENT, 1494-1566 (I, 478; V, 431)

IVAN THE TERRIBLE declared Tsar of all the Russias, 1547 (V, 240; I, 414)

Accession of Henry VIII, 1509 (V, 218)

Field of the Cloth of Gold, 1520 (V, 219)

Act of Supremacy passed by PARLIAMENT, 1534 (V, 220; X, 313)

Dissolution of the Monasteries, 1536-9 (I, 326)

Expansion of the known world through EXPLORATION and TRADE (IV, 143; VII, 445)

CHINESE Ming dynasty (I, 108)

HENRY VIII

WOLSEY

LEONARDO DA VINCI

MICHELANGELO

CHARLES V

ERASMUS

LUTHER

CALVIN

1550

Growth of African SLAVE TRADE (VII, 399; X, 412; V, 215)

Rule of AKBAR, Mogul Emperor, 1555-1605 (V, 4; I, 242)

Netherlands' revolt against Spain, 1566-1609, led by WILLIAM THE SILENT (V, 486)

Turks defeated by Spanish-Venetian fleet at Lepanto, 1571 (X, 395)

Accession of ELIZABETH I, 1558 (V, 154)

Statute of Apprentices, 1563 (VII, 146)

English challenge to Spanish SEA POWER (X, 396; V, 145)

War with Spain under PHILIP II, 1585 (V, 362) MARY QUEEN OF SCOTS beheaded, 1587 (V, 298)

HANSEATIC LEAGUE loses trade privileges in London, 1587 (VII, 222)

Defeat of SPANISH ARMADA, 1588 (X, 424; V, 146)

HENRY OF NAVARRE crowned king of France, 1594 (V, 220)

EAST INDIA COMPANY, greatest of CHARTERED COMPANIES, founded, 1600 (VII, 170, 94)

Elizabeth I's POOR LAW, 1601 (X, 332)

'HAPSBURG EMPIRE' (V, 85; I, 50)

INDIAN Mogul Empire (I, 242)

ELIZABETH I

MARY QUEEN OF SCOTS

CECIL

DRAKE

RALEIGH

SHAKESPEARE

PHILIP II

WILLIAM THE SILENT

1603

INVENTION AND
DISCOVERYRELIGION AND
THOUGHT

ARTS

1453

Diaz rounds Cape of Good Hope, 1487-8 (V, 117)

COLUMBUS discovers West Indies (1492) and mainland of S. America (1498) (V, 99)

CABOT discovers Newfoundland and Nova Scotia, 1497 (V, 67)

DA GAMA opens first European sea-route to India, 1497-9 (V, 117)

Preaching of SAVONAROLA in Florence (V, 401)

MAGELLAN's expedition sails round the world, 1519-22 (V, 288)

The Prince, MACHIAVELLI, 1513 (V, 287, 51)

Utopia, Sir Thomas MORE, 1516 (V, 320)

Criticism of Church in writings of ERASMUS (V, 158)

LUTHER translates the New Testament for German Reformation (V, 285)

Church reforms of ZWINGLI in Switzerland (V, 496)

Coverdale's English translation of the Bible, 1535 (XII, 459)

CALVIN's Protestant reforms at Geneva, 1536 (V, 69)

Society of Jesus founded by LO-YOLA, 1540 (V, 284; I, 326)

Council of Trent, 1545-63; beginning of Counter-Reformation (I, 407)

CRANMER's first English PRAYER BOOK, 1549 (V, 110; I, 375)

DRAKE sails round the world in the *GOLDEN HIND*, 1557-80 (V, 145; IV, 173)

Religious freedom granted to German LUTHERANS by CHARLES V, 1552 (V, 86; I, 287)

Martyrdom of English Protestants CRANMER, Latimer, and Ridley, 1556 (V, 110)

Protestantism in Scotland established by KNOX, 1560 (V, 262)

Carmelite Order in Spain reformed by St. TERESA (V, 443)

Massacre of St. Bartholomew's Eve, 1572 (I, 232; V, 220)

English galleons introduced by HAWKINS (V, 215; IV, 390)

PROBISHER begins search for N.W. Passage, 1576 (V, 173)

HAKLUYT's *Principall Navigations*, 1589 (V, 205)

RALEIGH's expedition to S. America, 1595 (V, 379)

Edict of Nantes, 1598; toleration of French Protestants (V, 220)

FLORENTINE PAINTING (XII, 153) ITALIAN ART (XII, 213)
VENETIAN PAINTING (XII, 465)
THE RENAISSANCE (I, 399; XII, 215, 83)
THE REFORMATION (I, 395)

Patronage of MEDICI FAMILY in Florence (V, 304):
BOTTICELLI and other painters (V, 52)

Oil painting first practised in Italy (XII, 325)

Rise of VENETIAN PAINTING (XII, 465):
BELLINI (V, 37)
GIORGIONE (V, 189)

MORALITY PLAYS (XII, 278)

KREMLIN, Moscow (XII, 230)

ETCHING AND ENGRAVING developed in Germany (XII, 139):
DÜRER (V, 148)

1500

High Renaissance art in Italy (XII, 216):
BRAMANTE (V, 55)
LEONARDO DA VINCI (V, 271)
MICHELANGELO (V, 308)
RAPHAEL (V, 382)
TITIAN (V, 446)
TINTORETTO (V, 446)
Sistine Chapel and Stanze, VATICAN (XII, 462)
ST. PETER'S, Rome, begun (XII, 401)

RABELAIS, French writer (V, 377)

HOLBEIN, Court painter to Henry VIII (V, 228)

BRUEGHEL, Flemish painter (V, 60)

MINIATURE painting in England (XII, 259)

1550

Lyric Poetry:

RONSARD (V, 391)
SPENSER (V, 423)
SIDNEY (V, 416)

Drama:

MARLOWE (V, 296)
SHAKESPEARE (V, 410; XII, 414)
JONSON (V, 251)

MONTAIGNE, French essayist (V, 316)

EL GRECO, Spanish painter (V, 199)

SACRED MUSIC of Palestrina and Byrd (XII, 397)

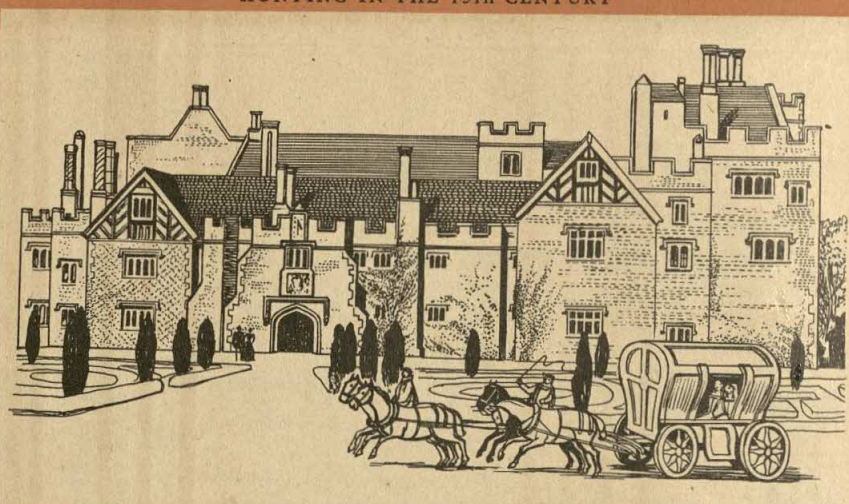
First ORATORIO (XII, 312)

Development of secular and instrumental music (XII, 292):
Madrigals (XII, 427)
First OPERA (XII, 309)

1603



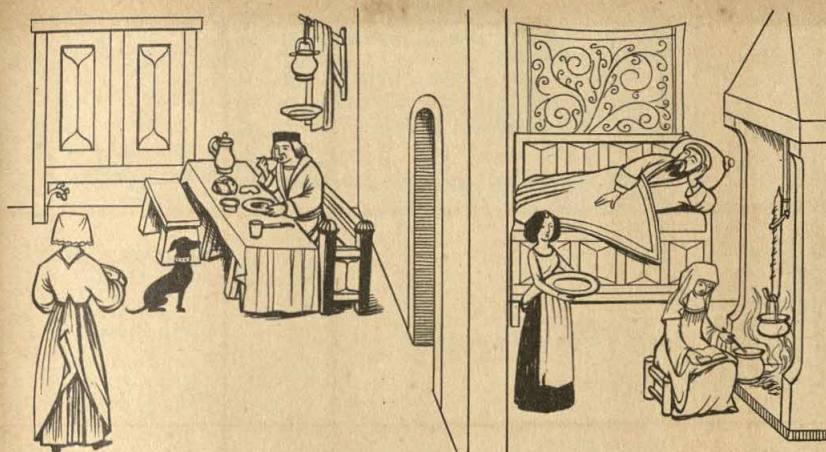
HUNTING IN THE 15TH CENTURY



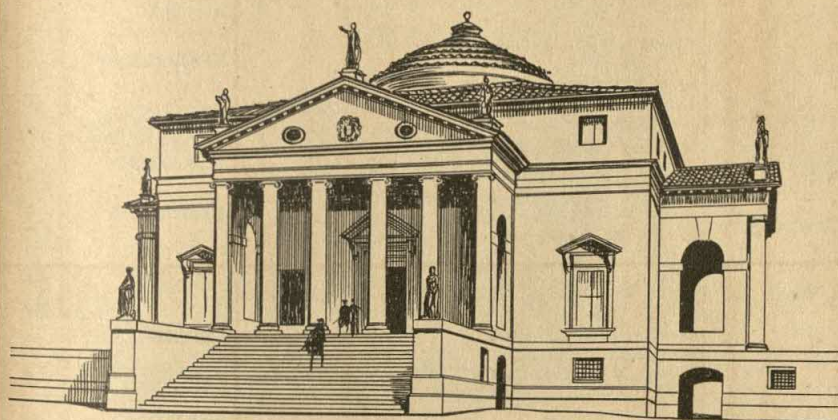
AN EARLY TUDOR COUNTRY HOUSE



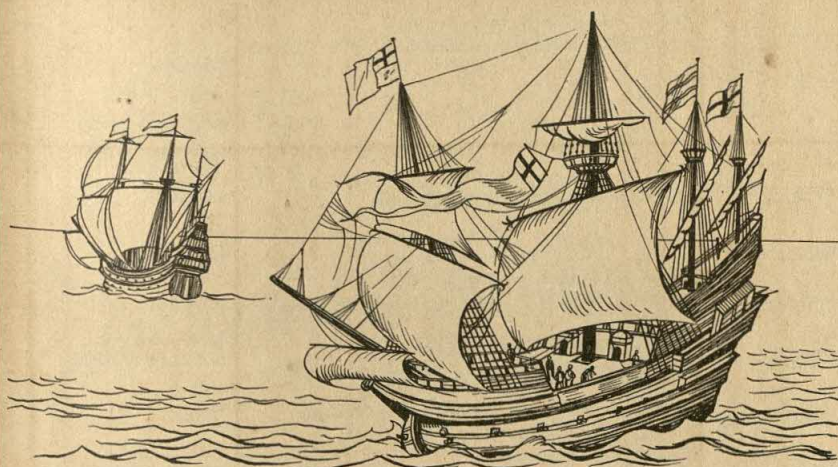
THE LONG GALLERY OF AN ELIZABETHAN HOUSE



ROOMS IN A FLEMISH HOUSE



AN ITALIAN RENAISSANCE VILLA



TUDOR SHIPS



POLITICAL AND SOCIAL EVENTS

GREAT LIVES

WORLD

BRITAIN

1603			
	Accession of James I; union of English and Scottish crowns, 1603 (I, 431) James I asserts the 'divine right of kings' (X, 313) Gunpowder Plot headed by Guy FAWKES, 1605 (V, 165) First successful colonization of Virginia, 1607 (I, 16; X, 104; V, 380) Settlement of Ulster by Scots and English Protestants, 1611 (I, 257)		BACON WALLENSTEIN GALILEO RICHELIEU
	Outbreak of Thirty Years War, 1618; Catholic victories under WALLENSTEIN (V, 466) RICHELIEU becomes Prime Minister of France, 1624; growth of French monarchy (V, 387)	Pilgrim Fathers sail for America, 1620 (I, 129)	
1625			
	Protestant victories in Thirty Years War under GUSTAVUS ADOLPHUS, 1630-2 (V, 203) France declares war on Spain, 1635 (V, 388) Japan closed to Europeans, 1638 (I, 268) Manchu dynasty established in China, 1644 (I, 108) Peace of Westphalia ends Thirty Years War, 1648 (V, 388, 90)	CHARLES I rules without PARLIAMENT, 1629-40 (V, 83; X, 312) Dispute over SHIP MONEY led by HAMPDEN, 1638 (X, 409; V, 206) Bishops' Wars: Presbyterian revolt in Scotland, 1639 (V, 265, 318) Long Parliament, 1640-60 (X, 97) IMPEACHMENT of LAUD and STRAFFORD, 1640 (X, 202; V, 265, 429) Outbreak of CIVIL WAR, 1642 (X, 96) Victories of MONTROSE in Scotland, 1644-5 (V, 317) CROMWELL's New Model ARMY victorious at Naseby, 1645 (V, 112; X, 39) CHARLES I executed, 1649; Commonwealth established (V, 83)	CHARLES I GUSTAVUS ADOLPHUS RUBENS REMBRANDT VELAZQUEZ VAN DYCK DESCARTES
1650			
	Dutch colony established in Cape Town, 1652 (I, 442) Absolute monarchy of LOUIS XIV; French wars of aggression (V, 283)	Dutch Wars, 1652-74: BLAKE, Prince RUPERT, DE RUYTER (X, 396; V, 45, 396, 133) Death of Cromwell, 1658. Restoration of CHARLES II, 1660 (V, 84) Persecution of CONGREGATIONALISTS and BAPTISTS by the Clarendon Code (I, 129, 64) Outbreak of Great Plague in London, 1665 (XI, 143; X, 348) FIRE OF LONDON, 1666 (X, 158) NEW YORK acquired from the Dutch, 1667 (III, 311)	CROMWELL MILTON LOUIS XIV PASCAL
1675			
	Peace of Nijmegen confirms French territorial gains in Europe, 1678 (V, 284) SOBIESKI defeats Turks at Vienna, 1683 (V, 418) Widespread reforms in Russia by PETER THE GREAT (V, 359) Formation of Grand Alliance (Britain, Netherlands, and Austria) against France (V, 294) Treaty of Ryswick: first French surrender of territory, 1697 (V, 284) War of the Spanish Succession, 1702-13; MARLBOROUGH's victory at Blenheim, 1704; Treaty of Utrecht, 1713 (V, 294; X, 228) Death of LOUIS XIV, 1715 (V, 283)	HABEAS CORPUS Act, 1679 (X, 181) Monmouth's rebellion, 1685 (V, 242) REVOLUTION OF 1688; deposition of James II (X, 372) BILL OF RIGHTS, 1689 (X, 53) Act of Toleration; freedom of worship granted to Non-conformists (X, 373) BANK OF ENGLAND founded, 1694 (VII, 34) Act of Settlement, 1701 (X, 54) Accession of George I, 1714 Riot Act, 1715 (X, 374) Stuart rebellion in Scotland led by the 'Old Pretender', 1715 (V, 430)	LOCKE DRYDEN NEWTON MARLBOROUGH WREN PETER THE GREAT
1715			

INVENTION AND
DISCOVERYRELIGION AND
THOUGHT

ARTS

1603

HUDSON's search for N.E.
and N.W. Passages (V, 231)*The Advancement of Learning*,
Francis BACON, 1605 (V, 29)Discovery of Laws of Planetary
Motion by KEPLER (V, 258;
III, 341)Authorized Version of the Bible
published, 1611 (XII, 460)Discovery of circulation of the
blood by HARVEY, 1616 (V,
211)Scientific and astronomical dis-
coveries of GALILEO (V,
179). Invention of the TELE-
SCOPE (VIII, 435; III, 24)System of INTERNATIONAL
LAW set out by GROTIUS
(X, 216; V, 203)Philosophy of DESCARTES
(V, 134)Discovery of NEW ZEALAND
by TASMAN, 1642 (V, 438;
I, 340)*Areopagitica*, pamphlet on free-
dom of the Press by MIL-
TON, 1644 (IV, 163; V, 310)Society of Friends founded by
George FOX, c. 1647 (I, 388;
V, 167)Atmospheric PRESSURE dis-
covered by Torricelli (III,
353)*The Leviathan*, HOBBS, 1651
(V, 225)BOYLE's discoveries in CHEM-
ISTRY (V, 53; VII, 98)Philosophy of LEIBNITZ,
SPINOZA, and PASCAL
(V, 269, 424, 348)Royal Society founded, 1662
(XII, 1)Greenwich Observatory found-
ed, 1675 (III, 24)PILGRIM's PROGRESS,
BUNYAN, 1678 (XII, 343;
V, 61)PENN establishes Quaker
colony of Pennsylvania, 1682
(V, 355)NEWTON's Laws of MOTION
set out in the *Principia*, 1687
(V, 336; III, 304)Edict of Nantes revoked by
LOUIS XIV, 1685 (V, 283)*An Essay Concerning Human
Understanding*, LOCKE, 1690
(V, 280)*Voyages and Descriptions*, DAM-
PIER, 1697 (V, 120)*The Principles of Human Know-
ledge*, BERKELEY, 1710 (V,
40)

MASQUES at English Court (IX, 315)

Don Quixote, CERVANTES (V, 78; XII, 433)METAPHYSICAL POETRY (XII, 257):
DONNE (V, 142)Renaissance architecture in Northern Europe:
Inigo JONES (V, 250)
Mansart (XII, 160, 467)French classical painting:
POUSSIN (V, 369)
CLAUDE (V, 93)Chinese works of art brought to Europe (XII,
76)

BERNINI, Italian sculptor and architect (V, 43)

TAJ MAHAL (XII, 449)

French ACADEMY founded (XII, 1)

French drama:
CORNEILLE (V, 107)
RACINE (V, 377)
MOLIERE (V, 314)GENRE PAINTING in Holland and Flanders
(XII, 166, 114)

REMBRANDT, Dutch painter (V, 383)

VERMEER (V, 457)

RUBENS, Flemish painter (V, 395)

VAN DYCK, Flemish painter (V, 455)

VELASQUEZ, Spanish painter (V, 455)

MILTON, PARADISE LOST (XII, 329; V,
310)

Diary of PEPYS (XII, 103; V, 356)

RESTORATION DRAMA (XII, 373)

ST. PAUL'S CATHEDRAL rebuilt by WREN
(XII, 400; V, 491)

Palace of VERSAILLES (XII, 467)

Blenheim Palace built by VANBRUGH (V, 454)

PURCELL, English composer (V, 374)

DRYDEN (V, 147)

POPE (V, 368)

The Tatler first literary PERIODICAL, pub-
lished by ADDISON and Steele (XII,
336; V, 3)

1625

1650

1675

1715

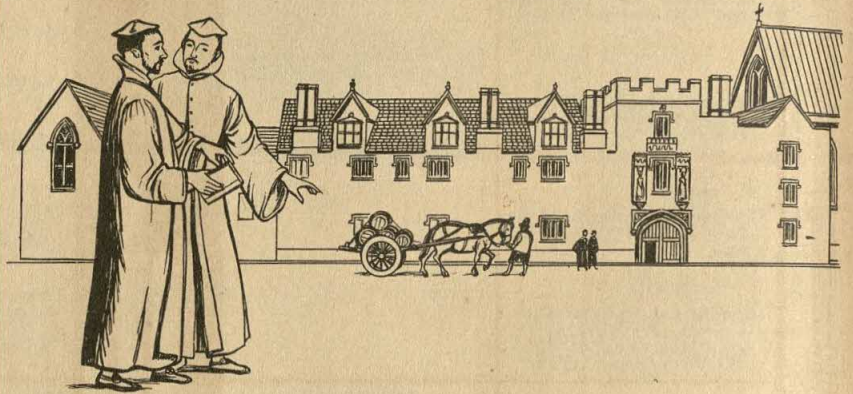
BAROQUE ART (XII, 38)

DUTCH ART (XII, 114)

AUGUSTAN AGE in England (XII, 32)

Growth of Protestantism (I, 118, 395)

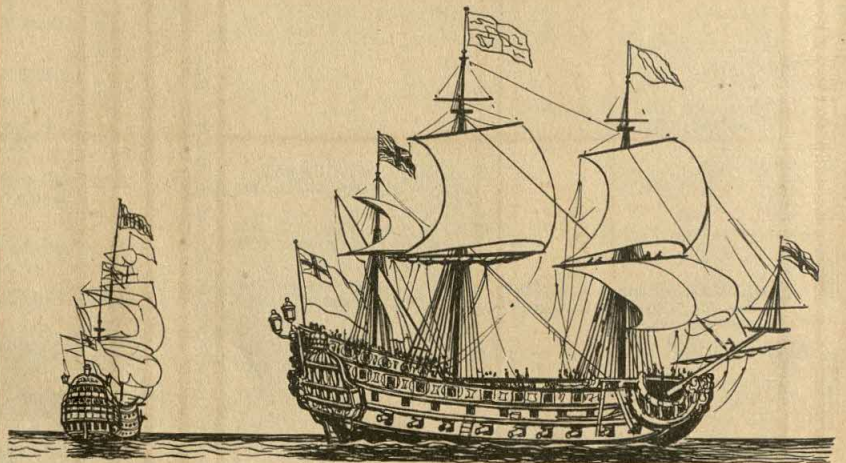
Reign of Louis XIV (V, 283)



A COLLEGE AT OXFORD



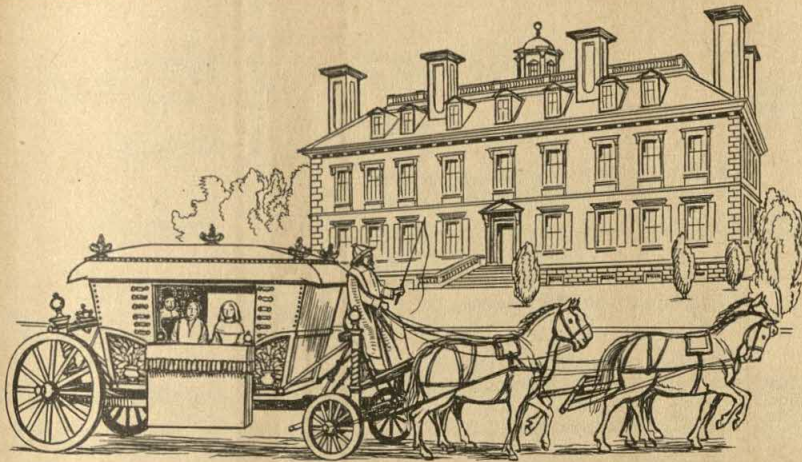
A DUTCH HOUSE



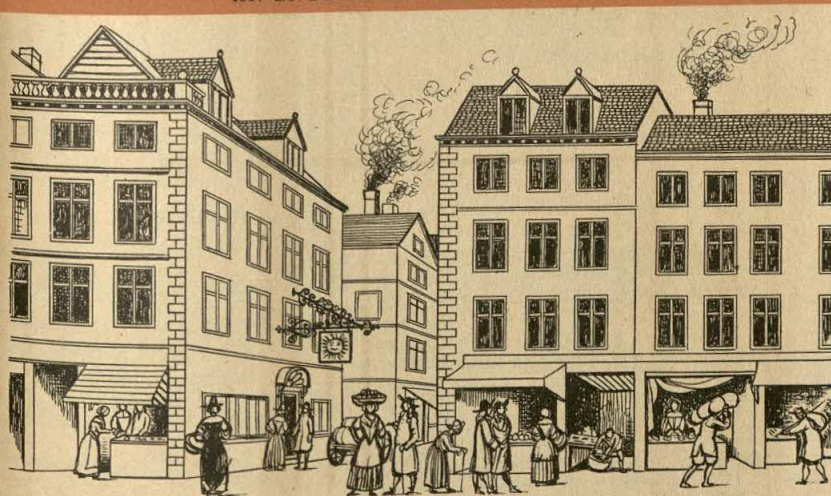
SHIPS OF THE ANGLO-DUTCH WARS



A TOWN HALL AND COVERED MARKET



AN ENGLISH RENAISSANCE HOUSE



LONDON AS REBUILT AFTER THE GREAT FIRE



POLITICAL AND SOCIAL EVENTS

WORLD

BRITAIN AND THE EMPIRE

GREAT LIVES

1715			
	Death of PETER THE GREAT, 1725 (V, 359)	Beginning of Whig supremacy under WALPOLE (X, 329; V, 468) First TRANSPORTATION of convicts to America, 1717 (X, 460) SOUTH SEA BUBBLE, 1720 (VII, 403) Five London HOSPITALS founded, 1719-45 (X, 189)	WALPOLE BACH POPE FREDERICK THE GREAT
1730	Outbreak of War of the Austrian Succession, 1740; FREDERICK THE GREAT invades Silesia (X, 486; V, 171, 293); British victory at Dettingen, 1743 MARIA THERESA's claim to Austrian throne confirmed by Treaty of Aix-la-Chapelle, 1748 (V, 293)	Georgia, last of the American colonies, founded, 1733 (I, 16) Charles STUART, the 'Young Pretender', lands in Scotland; the '45' rebellion (V, 430)	MARIA THERESA WESLEY CHATHAM VOLTAIRE ROUSSEAU
1750	Seven Years War, 1756-63; FREDERICK THE GREAT's struggles in Europe; colonial war between Britain and France (V, 171, 86; X, 104); French fleet defeated by HAWKE at Quiberon Bay, 1759 (V, 213)	Height of land enclosure movement (VI, 308) 'Black Hole of Calcutta', 1756 (V, 95) Pitt, later Earl of CHATHAM, comes into power, 1757 (V, 86) French in India defeated by CLIVE at Plassey, 1757 (V, 95) Quebec captured from French by WOLFE, 1759 (V, 487) Accession of GEORGE III, 1760 (V, 186) Civil liberties championed by WILKES in <i>North Briton</i> ; arrest of Wilkes, 1763 (V, 484) Stamp Act passed, 1765 (X, 25)	JOHNSON GEORGE III CATHERINE THE GREAT GAINSBOROUGH BURKE
1770	Expansion of Russian empire under CATHERINE THE GREAT (V, 74, 434) Maritime wars between Britain, France, and Spain; French fleet defeated by RODNEY and HOOD at Battle of the Saints, 1782 (V, 390, 229) AMERICAN CONSTITUTION drawn up, 1787 (X, 20; V, 469, 206, 169) WASHINGTON elected first President of U.S.A., 1789 (V, 469) Outbreak of FRENCH REVOLUTION, 1789 (X, 168)	North's Regulating Act for India, 1773 (V, 212) 'Boston Tea-Party', 1773 (X, 26) Outbreak of AMERICAN WAR OF INDEPENDENCE, 1775 (X, 25) Howard's survey of PRISONS, 1777 (X, 338) The Younger PITT becomes Prime Minister at 24, 1783 (V, 364) British surrender to Americans and French at Yorktown; Peace of Paris, 1783 (X, 26) <i>The Times</i> newspaper founded, 1785 (VII, 306) First convict ships sail for New South Wales, 1787; colonization of Australia begins (X, 460; I, 48) Trial of Warren HASTINGS, 1788 (V, 212)	JEFFERSON WASHINGTON WATT PITT
1789			

French and British colonial rivalry (X, 104; V, 86)

First INDUSTRIAL REVOLUTION (VII, 239)

Evangelical movement in England (I, 125; 307)

INVENTION AND
DISCOVERYRELIGION AND
THOUGHT

ARTS

1715

Experiments in stock-breeding and crop-growing: Tull and Townshend. Introduction of 4-course crop rotation (VI, 7, 388)

'Flying shuttle' invented for weaving, 1733 (VII, 240)

ANSON's voyage round the world in the CENTURION, 1740-4 (V, 14; IV, 91)

Gregorian CALENDAR adopted in Britain, 1752 (III, 68)

Classification of plants and animals by LINNAEUS, 1762 (V, 275; II, 88)

HUNTER's work on anatomy and SURGERY (V, 233; XI, 425)

'Spinning Jenny' invented by Hargreaves, 1764 (VII, 240)

Bridgewater CANAL completed by Brindley, 1767 (IV, 81)

COOK's voyage round the world in the ENDEAVOUR, 1768-71 (V, 105; IV, 136)

Invention of 'water-frame' spinning machine by ARKWRIGHT, 1769 (V, 18)

Leicester sheep bred by BAKEWELL (V, 31; VI, 8)

Crompton's spinning 'mule' (VII, 485)

Discovery of oxygen by PRIESTLEY, 1774 (V, 371)

LAVOISIER's theory of COMBUSTION (V, 265; VIII, 85)

Cartwright's power loom (VII, 485)

First cast-iron BRIDGE built in England, 1779 (IV, 62)

Rotative STEAM ENGINE patented by WATT, 1781 (V, 472; VIII, 406, 152)

Treatise of Human Nature, HUME, 1739 (V, 232)

METHODIST movement started by WESLEY (I, 307; V, 480)

The Social Contract, ROUSSEAU, 1762 (V, 393)

American 'Declaration of Independence' drawn up by JEFFERSON, 1776 (X, 20; V, 241)

The Wealth of Nations, Adam SMITH, 1776 (V, 417)

Sunday School movement founded by Raikes, 1780 (X, 437)

Critique of Pure Reason, KANT, 1781 (V, 255)

AUGUSTAN AGE in England (XII, 32)

ROCCOCO ART (XII, 376)

GEORGIAN ARCHITECTURE in England (XII, 167)

Classical music (XII, 293)

WATTEAU, French painter (V, 473)

SATIRE in Britain and France (XII, 404):

SWIFT (V, 435)

POPE (V, 368)

HOGARTH (V, 226)

VOLTAIRE (V, 462)

Music:

BACH (V, 27)

HANDEL (V, 206)

HAYDN (V, 215)

MOZART (V, 323)

NOVELS first published in England (XII, 298):

FIELDING (V, 165)

STERNE (V, 428)

GOLDSMITH (V, 195)

Dictionaries and encyclopaedias:

Dictionary of the English Language, JOHN-SON (V, 248)

French Encyclopaedia, edited by DIDEROT (V, 138)

Encyclopaedia Britannica (XII, 130)

English acting:

GARRICK (V, 183)

Sarah SIDDON (V, 415)

SHERIDAN, English dramatist (V, 415)

CONVERSATION PIECES (XII, 96)

LANDSCAPE ART in England (XII, 233):
'Capability' BROWN (V, 58)

English portrait painters:

REYNOLDS (V, 385)

GAINSBOROUGH (V, 178)

Royal ACADEMY founded, 1768 (XII, 1)

ADAM BROTHERS, British architects (V, 2)

Furniture and decoration:

Chippendale and Hepplewhite (XI, 192)

PORCELAIN first made in Europe (VII, 348)

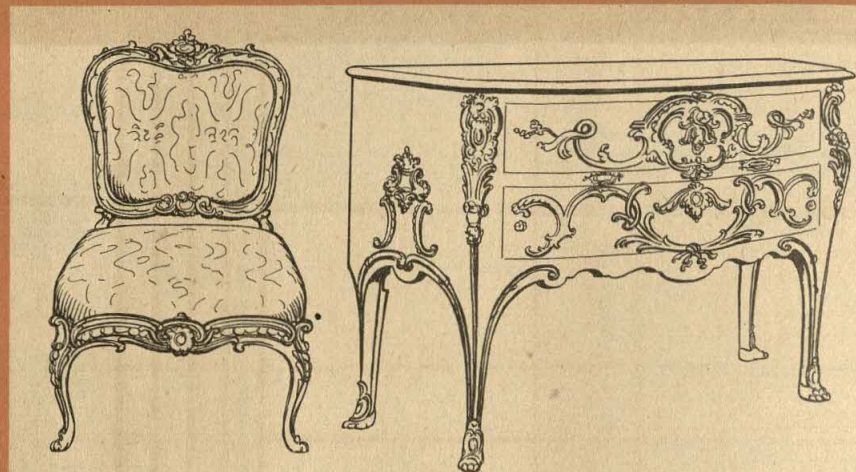
WEDGWOOD, pottery manufacturer (V, 475)

OPERAS (XII, 310):

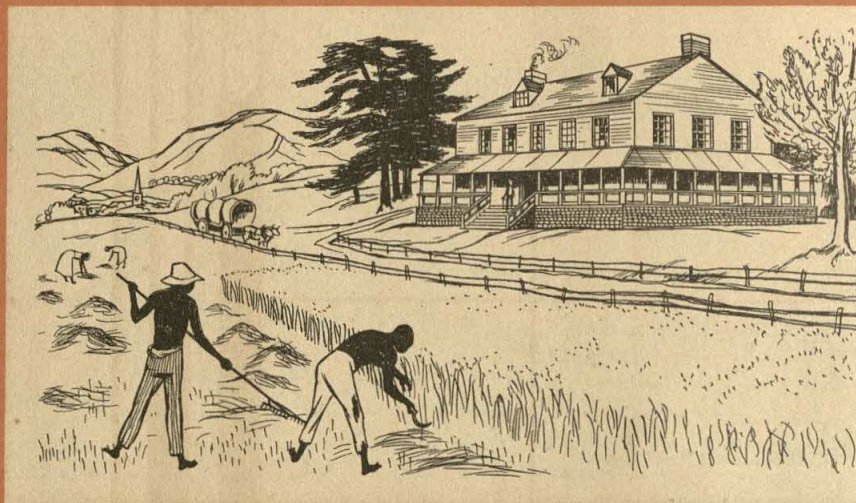
GLUCK (V, 194)

MOZART (V, 323)

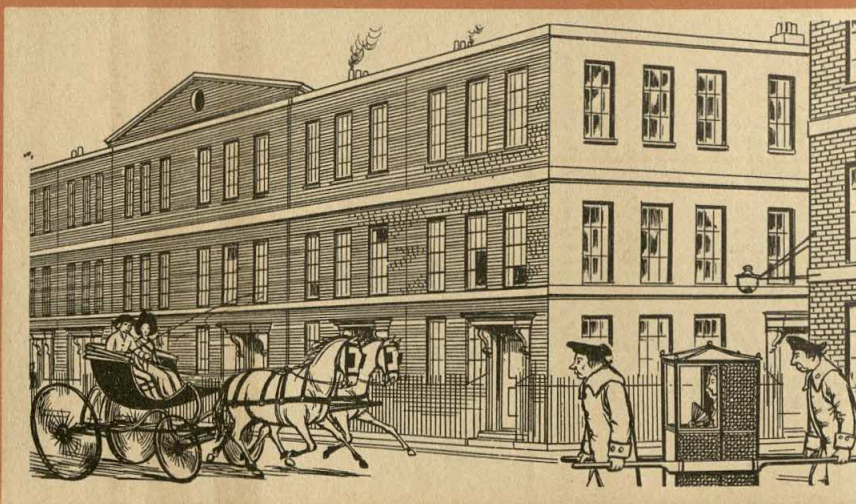
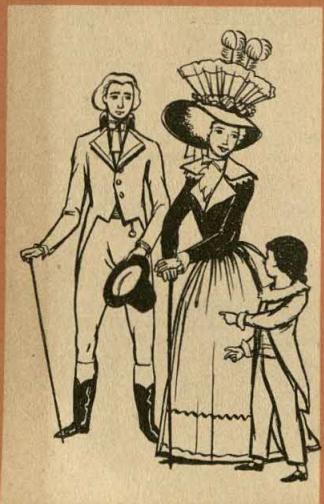
1789



FRENCH FURNITURE



A PLANTATION IN VIRGINIA, AMERICA



A SEDAN CHAIR AND A PHAETON



A COFFEE-HOUSE



ENGLISH MERCHANTS TRADING IN INDIA



HARVESTING



	WORLD EVENTS POLITICAL AND SOCIAL	BRITAIN AND THE EMPIRE	GREAT LIVES
1789	<p>First Coalition (Britain, Austria, Prussia, Spain) against France; NAPOLEONIC WARS, 1793-1815 (X, 279)</p> <p>'Reign of Terror' inspired by ROBESPIERRE; death of DANTON, 1794 (V, 389, 122)</p> <p>NAPOLEON's first Italian campaign, 1796 (V, 327)</p> <p>Spanish fleet defeated by JERVIS at Cape St. Vincent, 1797 (V, 244)</p> <p>French fleet destroyed by NELSON at Aboukir Bay, 1798 (V, 331)</p>	<p>Ceylon annexed from Holland, 1796 (I, 102)</p> <p>Naval MUTINY at Spithead suppressed by HOWE, 1797 (V, 230; X, 278)</p> <p>TRADE UNIONS declared illegal by PITT, 1799 (VII, 448; V, 364)</p> <p>Church Missionary Society founded, 1799 (I, 125)</p>	<p>PITT</p> <p>GOETHE</p> <p>DANTON</p> <p>WORDSWORTH</p>
1800	<p>NELSON's victory at TRAFALGAR, 1805, ensures British SEA POWER (X, 458, 396; V, 334)</p> <p>NAPOLEON defeats Austrians and Russians at Austerlitz, 1805, and Prussians at Jena, 1806 (V, 327; X, 279)</p> <p>Peninsular War in Spain, 1808; death of MOORE at Corunna, 1809 (X, 279; V, 319)</p>	<p>Abolition of the SLAVE TRADE (WILBERFORCE and FOX), 1807 (VII, 399; V, 483, 167)</p>	<p>WILBERFORCE</p> <p>NELSON</p> <p>NAPOLEON</p> <p>WELLINGTON</p>
1810	<p>Revolutions in Spanish-American colonies inspired by MIRANDA, BOLIVAR, and SAN MARTIN (V, 312, 49, 400)</p> <p>French defeated by WELLINGTON in Peninsular War, 1811-13 (V, 477)</p> <p>NAPOLEON's retreat from Moscow, 1812 (V, 330)</p> <p>Napoleon defeated by WELLINGTON at Waterloo, 1815 (V, 478; X, 281)</p> <p>Congress of Vienna; leadership of METTERNICH (X, 281; V, 307)</p>	<p>Industrial unrest: LUDDITE riots, 1811-16 (VII, 274)</p> <p>Corn Laws introduced, 1815 (V, 97)</p> <p>Accession of GEORGE IV, 1820 (V, 187)</p> <p>British settlements in Cape Colony, S. Africa, 1820 (I, 442)</p>	<p>METTERNICH</p> <p>CANNING</p> <p>BEETHOVEN</p> <p>BYRON</p>
1820	<p>Greek War of Independence against Turkey, 1821-9 (I, 210)</p> <p>MONROE DOCTRINE formulated by U.S.A., 1823 (X, 274)</p>	<p>TRADE UNIONS recognized by Repeal of Combination Acts, 1824 (VII, 450)</p> <p>Metropolitan POLICE formed by PEEL, 1829 (X, 325; V, 355)</p> <p>Catholic Emancipation Act, 1829 (V, 355, 342; X, 319)</p>	<p>SCOTT</p> <p>FRY, Elizabeth</p> <p>OWEN</p> <p>COBBETT</p>
1830	<p>Separation of Belgium from Holland, 1831 (I, 68, 147)</p> <p>'Young Italy' founded by MAZZINI, 1831 (V, 303; X, 406)</p>	<p>Reform Act, 1832 (X, 145)</p> <p>Factory Act, 1833; appointment of FACTORY INSPECTORS (X, 206, 150)</p> <p>Abolition of SLAVERY in British Empire, 1833 (X, 412)</p> <p>POOR LAW reformed, 1834 (X, 334)</p> <p>Boers' Great Trek, 1836 (X, 423)</p> <p>Accession of Queen VICTORIA, 1837 (V, 458)</p>	<p>BENTHAM</p> <p>FARADAY</p> <p>SHAFTESBURY</p>
1837			

INVENTION AND THOUGHT

Reflections on the Revolution in France, BURKE, 1790 (V, 62)
The Rights of Man, PAINE, 1791 (V, 345)

Invention of 'ginning process' in COTTON MANUFACTURE, 1793 (VII, 140)

First successful vaccination performed by JENNER, 1796 (XI, 253; V, 242)

An Essay on Population, Malthus, 1798 (V, 125)
 Invention of LITHOGRAPHY, c. 1798 (XII, 245)

First MACADAM ROADS (IV, 247)

COKE's experimental farming (V, 97; VI, 8)

Utilitarian Philosophy of BENTHAM (V, 39)

A New View of Society, OWEN, 1813 (V, 343)

SAFETY LAMP invented by DAVY, 1815 (VIII, 379; V, 129)

First Atlantic crossing by STEAMSHIP, 1819 (IV, 435)

Philosophy of Law, HEGEL, 1821 (V, 217)

Stockton-Darlington RAILWAY opened, 1825 (IV, 348)

MENAI SUSPENSION BRIDGE built by TELFORD, 1826 (IV, 265; V, 440)

LONDON UNIVERSITY opened, 1828 (X, 254)

STEPHENSON's locomotive, the 'Rocket', built, 1829 (IV, 348; V, 427)

Thomas ARNOLD's PUBLIC SCHOOL reforms (V, 19; X, 351)
 Electric INDUCTION discovered by FARADAY, 1831 (VIII, 226; V, 163)

Tracts for the Times, NEWMAN, Pusey, and Keble (V, 335)

FROEBEL's first kindergarten opened (V, 174)

Evangelical Movement (I, 125)

Neo-classical Revival (XII, 87)

ROMANTIC MOVEMENT (XII, 388)

REGENCY ARCHITECTURE (XII, 372)

Oxford Movement (I, 125; V, 335)

ARTS

1789

German poetry and drama:

GOETHE (V, 194)
 SCHILLER (V, 402)

GOYA, Spanish painter and etcher (V, 197)

French Neo-classical painting:
 David and Ingres (XII, 161)

LITHOGRAPHY invented (XII, 245)

English poetry:

WORDSWORTH (V, 489)
 COLERIDGE (V, 98)
 KEATS (V, 256)
 SHELLEY (V, 413)
 BYRON (V, 65)

BLAKE, English poet and painter (V, 47)

English Landscape painting:
 CONSTABLE (V, 102)
 TURNER (V, 451)

NASH, British architect (V, 330)

Novels:

Jane AUSTEN (V, 25)
 SCOTT (V, 406)
 DICKENS (V, 135)
 STENDHAL (V, 426)
 BALZAC (V, 31)

National Gallery opened, 1824 (XII, 28)

Music:

BEETHOVEN (V, 35)
 SCHUBERT (V, 403)
 MENDELSSOHN (V, 306)
 BERLIOZ (V, 41)

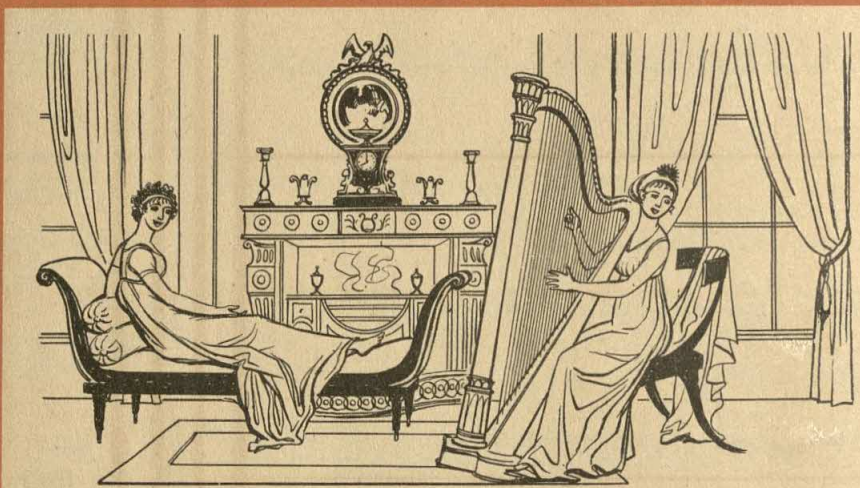
PUSHKIN (V, 375)

French Romantic painting:
 DELACROIX (V, 132)

1837



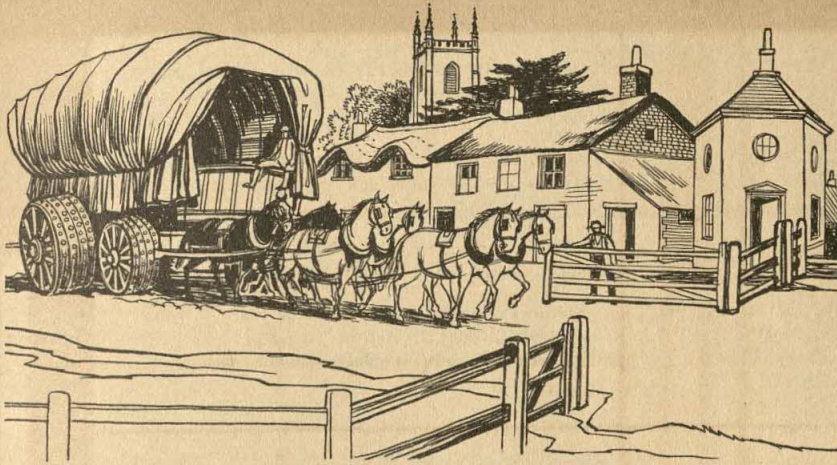
COTTAGE INDUSTRY: PREPARING FLAX IN IRELAND



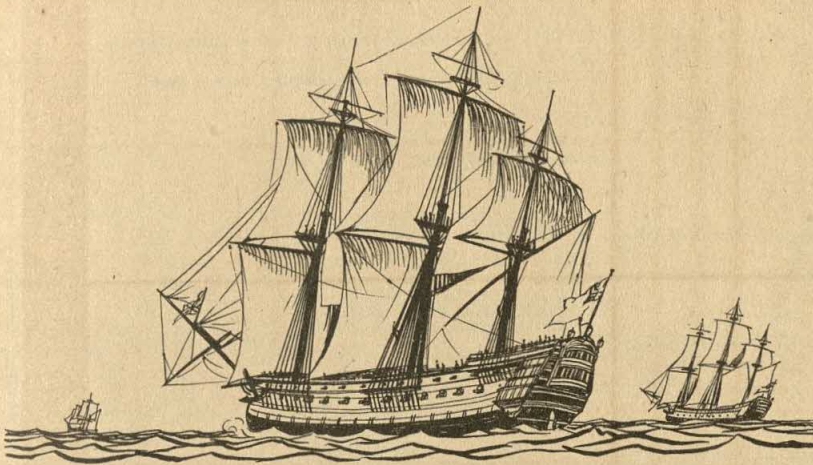
A REGENCY ROOM



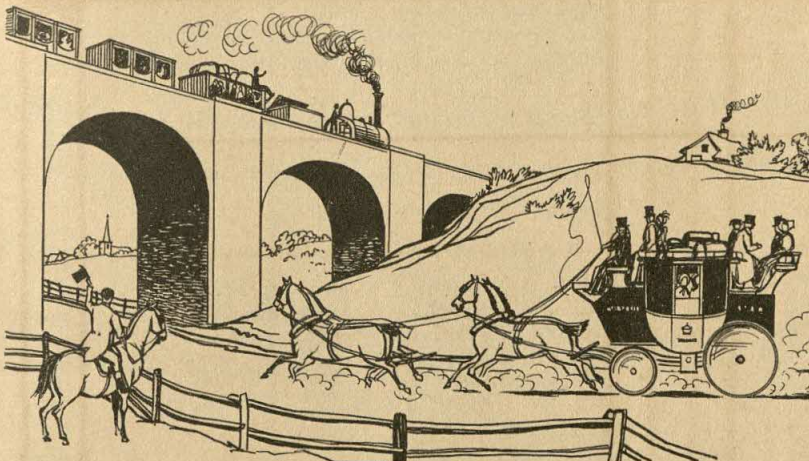
A SEASIDE RESORT



A TOLL GATE



SHIPS OF THE NAPOLEONIC WARS



A MAIL COACH AND AN EARLY TRAIN



WORLD EVENTS POLITICAL AND SOCIAL

BRITAIN AND THE EMPIRE

1837

Mexico defeated and partitioned by U.S.A., 1846-8 (I, 312)
 Revolutionary activities of MAZZINI in Italy (V, 303)
 European REVOLUTIONS of 1848 (X, 371; V, 297)
 Great Californian gold-rush, 1849 (VII, 211)

Penny Postage introduced by HILL, 1840 (IV, 328; V, 223)
 Irish Home Rule movement led by O'CONNELL (V, 342)
 Marriage of Queen VICTORIA to Prince ALBERT, 1840 (V, 6, 458)
 Treaty of Waitangi with Maoris, New Zealand, 1840 (I, 340)
 First Colonial settlements in New Zealand organized by WAKEFIELD (V, 465)
 First CO-OPERATIVE shop opened, 1844 (VII, 127)
 FAMINE in Ireland, 1845 (VI, 128; V, 342)
 Repeal of Corn Laws by PEEL, 1846 (V, 355, 97; VII, 249; X, 329)
 Ten Hours Factory Act, 1847 (V, 409; X, 206)
 First PUBLIC HEALTH Act, 1848 (X, 348)
 Last CHARTIST demonstration in London, 1848 (X, 77)

1850

CRIMEAN WAR, 1854-6 (X, 117)

GREAT EXHIBITION, 1851 (VII, 183)
 Gold-rush to Australia, 1851 (VII, 212)

BURTON and Speke's expedition to Central Africa, 1854 (V, 65)
 PALMERSTON becomes Prime Minister, 1855 (V, 346)

Indian MUTINY, 1857 (X, 278; V, 267)

War for the 'unification of Italy, 1859-60; GARIBALDI's 'Thousand' (I, 263; V, 182, 75)

1860

LINCOLN elected President of U.S.A., 1860 (V, 273)
 Emancipation of Russian serfs by ALEXANDER II, 1861 (V, 9)
 Outbreak of AMERICAN CIVIL WAR, 1861 (X, 19; V, 273)
 RAILWAYS built across the American Continent, 1863-9 (IV, 350)
 RED CROSS founded, 1864 (X, 361)
 Defeat of American Southern forces under LEE by GRANT; SLAVERY abolished, 1865 (V, 268, 178; X, 411, 20)

Death of Prince ALBERT, 1861 (V, 6)

Westernization of JAPAN (I, 268)

LIVINGSTONE's third expedition to Equatorial Africa, 1866 (V, 278, 425)
 Dominion of CANADA formed, 1867 (I, 92)
 Second Reform Act, 1867 (X, 144)
 First WOMEN'S SUFFRAGE societies formed (X, 493)
 GLADSTONE's first Liberal Ministry, 1868 (V, 191)

SUEZ CANAL opened, 1869 (IV, 440)

Outbreak of Franco-Prussian War; Siege of Paris, 1870 (X, 411; V, 44)

Universal elementary EDUCATION introduced, 1870 (X, 139)

1870

Foundation of German Empire by BISMARCK, 1871 (V, 43)

TRADE UNIONS fully legalized, 1871 (VII, 448)

Cardwell's ARMY reforms, 1872 (X, 40)

DISRAELI's Conservative Ministry, 1874 (V, 139)
 First BARNARDO Home opened in Stepney, 1875 (V, 32)
 Salvation Army founded by BOOTH, 1875 (V, 50)
 Chimney Sweep Act, 1875 (V, 410; X, 79)

Congress of Berlin, 1878 (V, 140)

1880

Boer struggle for independence in the Transvaal led by KRUGER, 1880 (V, 262; I, 442)

Rise of SOCIALISM (X, 421; V, 296)
 Growth of nationalism (X, 290)

Second INDUSTRIAL REVOLUTION (VII, 239)

GREAT LIVES

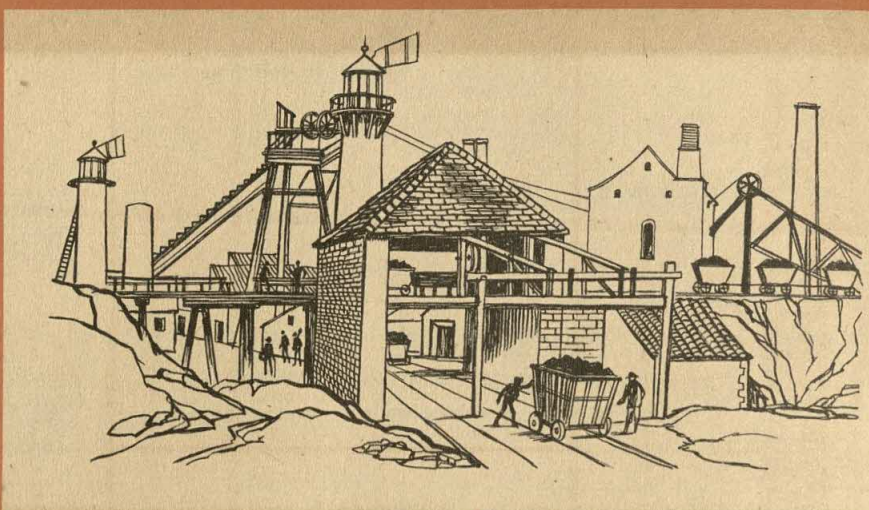
INVENTION AND THOUGHT

ARTS

1837

VICTORIA	Development of RAILWAYS throughout Europe (IV, 347)	Novels, (a) English: Charlotte and Emily BRONTË (V, 56) THACKERAY (V, 443) DICKENS (V, 135) TROLLOPE (V, 450) George ELIOT (V, 153)
ALBERT, PRINCE CONSORT	System of electric signalling invented by Morse, 1840 (IV, 445)	
TENNYSON		(b) French: BALZAC (V, 31) DUMAS (V, 148) HUGO (V, 232) FLAUBERT (V, 166)
DICKENS	First use of ANAESTHETICS by LISTER, 1847 (XI, 4; V, 276) <i>Communist Manifesto</i> , MARX, 1848 (V, 296)	
RUSKIN	Public LIBRARIES Act passed in Britain, 1850 (IV, 227)	(c) Russian: TURGENEV (V, 451) DOSTOEVSKY (V, 143) TOLSTOY (V, 447)
MARX		
NIGHTINGALE, Florence		Poetry: TENNYSON (V, 441) ARNOLD (V, 19) BROWNING (V, 58) BAUDELAIRE (V, 33) RIMBAUD (V, 388) WHITMAN (V, 481)
DARWIN		
CAVOUR	STEEL MAKING process invented by Bessemer, 1856 (VIII, 413)	Opera: WAGNER (V, 464; XII, 376) VERDI (V, 457) BIZET (V, 45)
GARIBALDI	<i>Origin of Species</i> , DARWIN's Theory of EVOLUTION, 1859 (V, 123; I, 165; II, 137) <i>Essay on Liberty</i> , J. S. MILL, 1859 (V, 309)	
LINCOLN	<i>Unto This Last</i> , RUSKIN, 1862 (V, 397) <i>First Principles</i> , SPENCER, 1862 (V, 423) <i>Evidences of Man's Place in Nature</i> , HUXLEY, 1863 (V, 234) Laws of Thermodynamics formulated by KELVIN (V, 257; VIII, 196) Invention of GRAMOPHONE by EDISON (IX, 262; V, 151) First use of ANTISEPTICS in SURGERY by LISTER, 1865 (XI, 7; V, 276) Laws of HEREDITY formulated by MENDEL, 1866 (V, 306; II, 204) First successful transatlantic telegraph CABLE laid, 1866 (IV, 76) Invention of ELECTRIC MOTOR and GENERATOR; development of industrial machinery (VIII, 133, 130) Girton College, Cambridge, founded, 1869 (X, 68)	Orchestral and piano music: CHOPIN (V, 89) SCHUMANN (V, 404) LISZT (V, 277) BRAHMS (V, 54)
GLADSTONE		
DISRAELI		Landscape painting (XII, 235): TURNER (V, 451) COURBET (V, 109) MANET (V, 289) GOTHIC REVIVAL (XII, 180) PRE-RAPHAELITES (XII, 360; V, 322) IMPRESSIONIST PAINTING (XII, 204)
BISMARCK		
VERDI		
WAGNER		
MAXWELL, Clerk		
LISTER	<i>Electricity and Magnetism</i> , Clerk MAXWELL, 1873 (V, 302)	
PASTEUR	Invention of TELEPHONE by Bell, 1876 (IV, 426; VIII, 433) <i>Geographical Distribution of Animals</i> , WALLACE, 1876 (V, 466; II, 11)	
TOLSTOY		
MORRIS	Development of electric lighting (VIII, 224; V, 151)	

1880



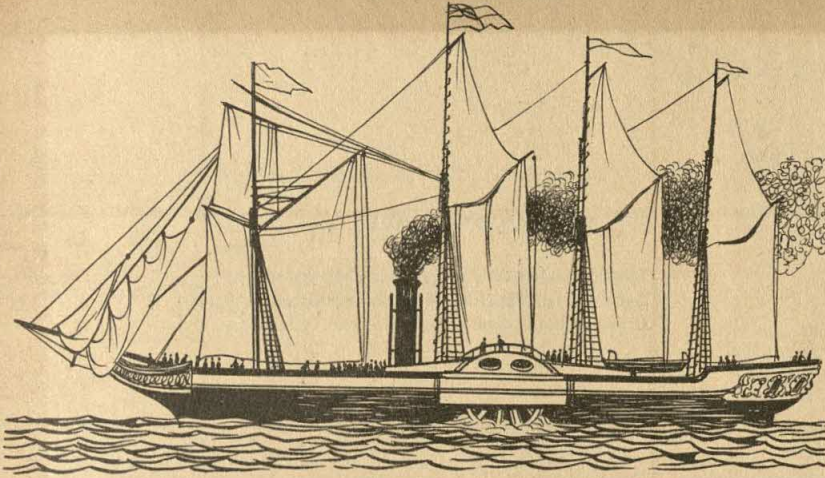
A COAL MINE



A RAILWAY STATION



A VICTORIAN FAMILY



AN EARLY PADDLE STEAMER



A VICTORIAN SLUM



A PICNIC



WORLD EVENTS
POLITICAL AND SOCIAL

BRITAIN AND THE EMPIRE

1880

Assassination of Czar ALEXANDER II, 1881 (V, 9; X, 47)

Third Reform Act, 1884 (X, 144)

Death of GORDON at Khartoum, 1885 (V, 196)

Agitation for Irish Home Rule led by PARNELL (V, 348)

Canadian Pacific Railway opened, 1886 (IV, 350, 354)

COUNTY COUNCILS formed, 1888 (X, 253)

1890

RHODES becomes Prime Minister of Cape Colony, 1890 (V, 386)

NANSEN's expedition to the Farthest North, 1893 (V, 326)

Keir HARDIE elected first Labour M.P., 1892 (V, 208; X, 330)

'Jameson Raid' into the Transvaal, 1895 (V, 386)

First Hague Conference, 1899 (X, 182, 216)

British campaign in the Sudan: KITCHENER's victory at Omdurman, 1898 (V, 261)

Outbreak of SOUTH AFRICAN WAR, 1899 (X, 423)

1900

Russo-Japanese War, 1904-5 (X, 299, 387)

Enlargement of KIEL CANAL, 1906-14, for growing German navy (IV, 215; X, 299)

International armaments race: second Hague conference, 1907 (X, 159, 182)

Death of Queen VICTORIA, 1901 (V, 458)

AUSTRALIAN Colonies federate as a Dominion, 1901 (X, 48)

End of SOUTH AFRICAN WAR, 1902 (X, 423)

LOCAL EDUCATION AUTHORITIES established, 1902 (X, 244)

Joseph CHAMBERLAIN leads agitation for TARIFF reform (V, 81; VII, 250)

Universities established at Birmingham, Liverpool, Leeds, and Sheffield, 1900-5 (X, 346)

WOMEN'S SUFFRAGE movement (X, 493)

Labour Party established in Parliament, 1906 (X, 330)

Liberal government, 1906-16; programme of social reform (X, 330)

BOY SCOUT movement founded by Lord BADEN-POWELL, 1907 (IX, 85; V, 31)

Old Age Pensions Act, 1908 (X, 334)

First attempt to reach the South Pole led by SHACKLETON, 1908-9 (V, 408)

PEARY reaches the North Pole, 1909 (V, 354)

First EMPLOYMENT EXCHANGES set up, 1909 (X, 194)

Union of SOUTH AFRICA established, 1910 (X, 422)

LLOYD GEORGE's SOCIAL INSURANCE legislation; first National Health Insurance scheme, 1911 (V, 279; X, 419)

AMUNDSEN and SCOTT reach the South Pole, 1911-12 (V, 11, 405)

Chinese republican revolution led by SUN YAT-SEN, 1911 (V, 433; I, 110)

Internationalization of TANGIER, 1912 (III, 432)

Woodrow WILSON elected President of U.S.A., 1912 (V, 487)

Opening of PANAMA CANAL, 1914 (IV, 307)

Outbreak of FIRST WORLD WAR, 1914 (X, 159; see also Index p. 59)

1914

GREAT LIVES

INVENTION AND THOUGHT

ARTS

1880

CÉZANNE

Thus *Spake Zarathustra*, NIETZSCHE, 1883-91 (V, 338)

Fabian Society founded by the WEBBS, 1884 (V, 474, 412; X, 330)

WEBB, Sidney and Beatrice

First modern BICYCLE manufactured, 1885 (IV, 44)

INOCULATION practised by PASTEUR, 1885 (V, 350; XI, 253)

HARDIE, James Keir

SHAW

SUN YAT-SEN

KITCHENER

ELGAR

LENIN

LLOYD GEORGE

EINSTEIN

FREUD

Novels:

Mark TWAIN (V, 452)
 STEVENSON (V, 428)
 HARDY (V, 209)
 Conan DOYLE (V, 144)
 KIPLING (V, 260)
 WELLS (V, 479)

Drama:

IBSEN (V, 236)
 SHAW (V, 412)
 SYNGE (V, 436)

Acting:

IRVING (V, 237)
 Sarah BERNHARDT (V, 42)

Poetry:

HARDY (V, 209)
 YEATS (V, 495)

Ballet (IX, 45):

DIAGHILEFF (V, 135)
 PAVLOVA (V, 354)
 NIJINSKY (V, 341)

Orchestral music:

DVORAK (V, 150)
 ELGAR (V, 153)
 Richard STRAUSS (V, 430)
 SIBELIUS (V, 415)

POST-IMPRESSIONIST PAINTING (XII, 353)
 CÉZANNE (V, 80)

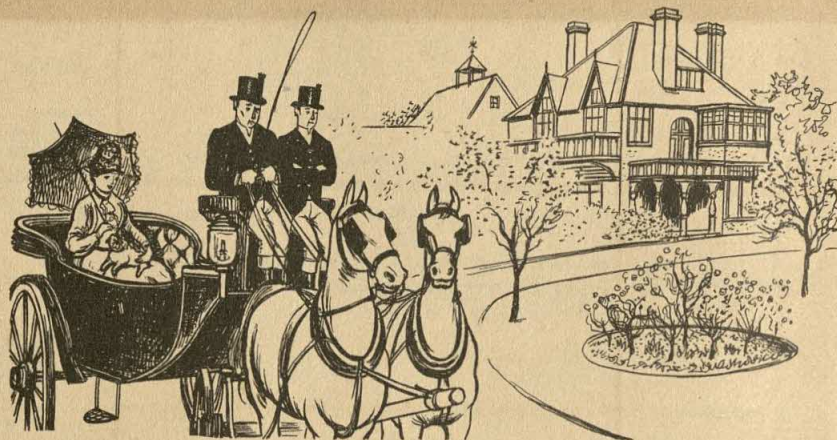
EXPRESSIONIST ART (XII, 143)

'Fauve' painting (XII, 266)

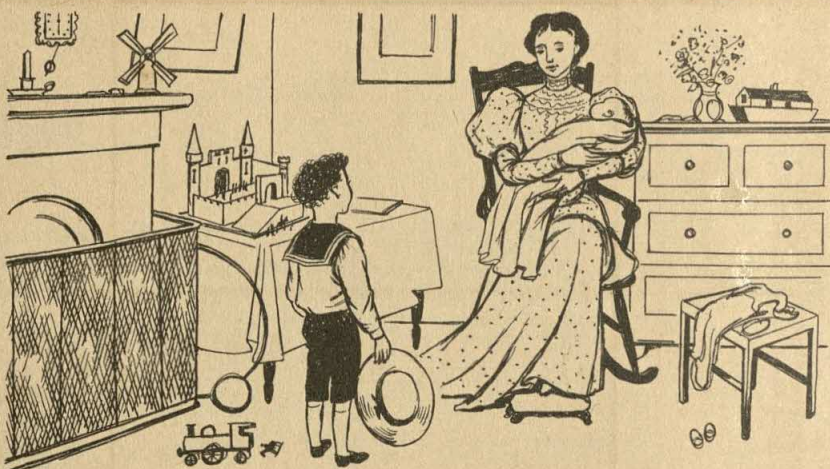
'Cubist' art (XII, 266)

Futurist art (XII, 267)

1914



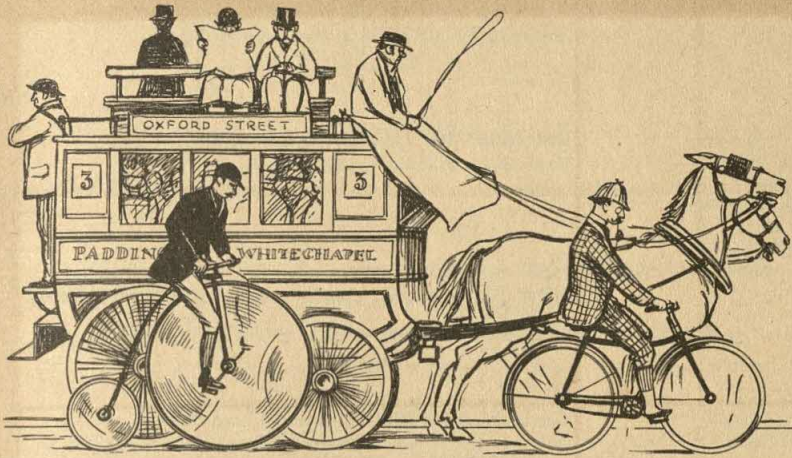
A VICTORIAN LADY'S AFTERNOON DRIVE



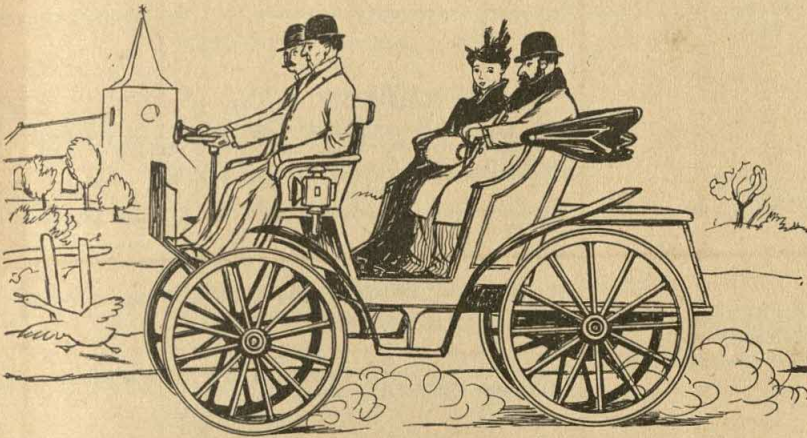
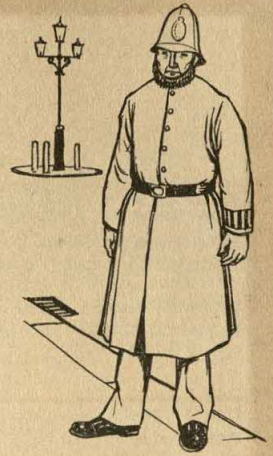
AN EDWARDIAN NURSERY



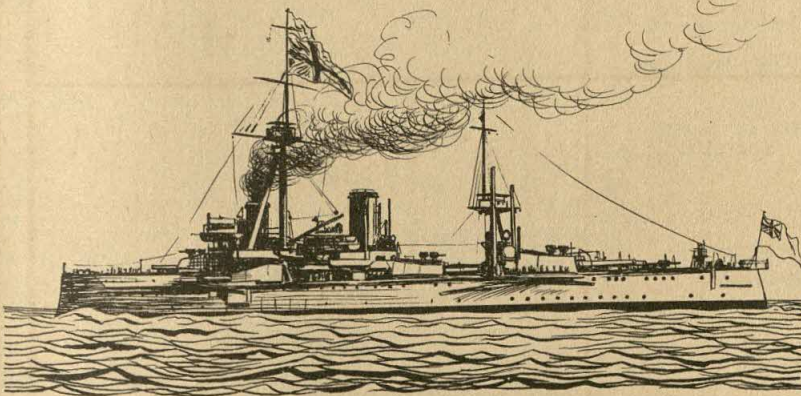
A FAMILY AT THE SEASIDE



A HORSE OMNIBUS, A 'PENNYFARTHING', AND A 'SAFETY' BICYCLE



AN EARLY MOTOR-CAR



A BATTLESHIP



WORLD EVENTS POLITICAL AND SOCIAL

BRITAIN AND THE EMPIRE

1914

RUSSIAN REVOLUTION, 1917 (March, Parliamentary; November, Bolshevik) (X, 387; V, 269, 450)
U.S.A. enters First World War, 1917 (X, 160; V, 487)
End of FIRST WORLD WAR; German, Austrian, and Hungarian revolutions, 1918 (X, 161, 370)
Treaty of Versailles, 1919 (X, 160)
Republic of CZECHOSLOVAKIA established under MASARYK, 1919 (I, 135; V, 300)

Volunteer 'KITCHENER armies', 1914-16 (V, 261)

CONSCRIPTION introduced in Britain, 1916 (X, 112)
Easter Rising in Ireland, 1916 (V, 495)

Partial electoral rights granted to women, 1918 (X, 495)
Fisher's Education Act; extension of Secondary EDUCATION, 1918 (X, 142)
SMUTS becomes Prime Minister of South Africa, 1919 (V, 417)

1920

League of Nations organized, 1920 (X, 212, 181, 389)
Prohibition Laws passed in U.S.A., 1920 (X, 450)
STALIN becomes General Secretary of Russian Communist Party, 1922 (V, 425)
Turkish Republican revolution led by ATATÜRK, 1922 (V, 21; I, 479)
MUSSOLINI's march on Rome; Fascist revolution in Italy, 1922 (V, 325; X, 453)

First Municipal HOUSING estates planned (X, 199)
Civil war in Ireland; southern Ireland becomes Irish Free State (Eire), 1921 (X, 431, 63)

First Labour Government under Ramsay MacDonald, 1924 (X, 331)

General Strike, 1926 (VII, 450)

POOR LAW and WORKHOUSE system abolished (X, 332, 495); responsibility transferred to LOCAL AUTHORITIES (X, 241)
Full electoral rights granted to women, 1928 (X, 495)

World TRADE depression, 1929-34 (VII, 439; X, 132)

Civil disobedience movement in India led by GANDHI (X, 204; V, 180)

1930

World financial crisis, 1931 (VII, 31)
Japanese invasion of MANCHURIA, 1931 (III, 274)
ROOSEVELT elected President of U.S.A., 1932 (V, 391)
German Nazi Revolution; HITLER becomes Chancellor, 1933 (V, 224)

Britain abandons Gold Standard, 1931 (VII, 37; X, 124)
STATUTE OF WESTMINSTER, 1931 (X, 431)

Economic depression and UNEMPLOYMENT; Public Assistance introduced (VII, 459; X, 469, 281)

Italian conquest of Abyssinia, 1935 (V, 325)
German army occupies Rhineland, 1936 (V, 224)
Outbreak of Spanish Civil War, 1937 (I, 449; X, 454)
Austria annexed by Germany, 1938 (X, 402)
Munich agreement; German occupation of Czechoslovakia, 1938 (X, 402)
Outbreak of SECOND WORLD WAR, 1939 (X, 402, 143. See also Index p. 60)

Government of INDIA Act passed, 1935; Moslem resistance led by JINNAH (X, 204; V, 245)
Accession and abdication of Edward VIII, 1936 (X, 120)

Collapse of France and BATTLE OF BRITAIN, 1940 (X, 50)

1940

STALIN becomes Premier of Russia, 1941 (V, 425; X, 385)
Pearl Harbour: U.S.A. enters SECOND WORLD WAR, 1941 (X, 402, 264)
LEND-LEASE instituted, 1941 (X, 239)

Malta awarded the George Cross, 1942 (I, 294)
Beveridge Report on SOCIAL INSURANCE, 1942; leading to post-war National Health Service (X, 419, 286)

Surrender of Germany, May 1945 (X, 402)
Surrender of Japan, September 1945 (X, 405)
UNITED NATIONS ORGANIZATION founded, 1945 (X, 473)

EDUCATION Act of 1944 (X, 142)

Distribution of Industry Act to help DEVELOPMENT AREAS, 1945 (X, 132)

1945

GREAT
LIVES

INVENTION AND THOUGHT

ARTS

1914

LENIN

First transmission of SPEECH by WIRELESS, 1915 (IV, 428, 485)

TROTSKY

TANKS first used in warfare, 1916 (X, 230, 440)

LLOYD GEORGE

Trans-Atlantic flight by Alcock and Brown, 1919 (IV, 156)
CIVIL AVIATION passenger services introduced, 1919 (IV, 156)

MASARYK

The Economic Consequences of the Peace, KEYNES, 1919 (V, 259)

WILSON, Woodrow

WELLS

Baird's public demonstration of TELEVISION, 1925 (IV, 451)

SMUTS

The Jazz Singer: first talking film shown, 1927 (IX, 130)
British BROADCASTING CORPORATION founded, 1927 (IV, 67)

SHAW

First London automatic TELEPHONE exchange opened, 1927 (IV, 448)

ATATÜRK

Professor Piccard reaches stratosphere in BALLOON, 1931 (IV, 36)

GANDHI

Enclosure of ZUIDER ZEE completed, 1932 (VIII, 495)
RUTHERFORD's researches into NUCLEAR POWER; the splitting of the atom (V, 398; VIII, 315)

HITLER

RADAR invented by Robert Watson-Watt (VIII, 347)
TENNESSEE VALLEY AUTHORITY set up, 1933 (VIII, 444)

MUSSOLINI

ROOSEVELT

STALIN

EINSTEIN

First jet AIRCRAFT ENGINE designed (IV, 8)

CHURCHILL

Atomic BOMBS used in warfare, 1945 (VIII, 314; X, 58)

Novels:

PROUST (V, 372)
JOYCE (V, 252)
D. H. LAWRENCE (V, 266)
Virginia Woolf (XII, 301)
André Gide (XII, 165)

Poetry:

T. S. Eliot (XII, 272)
Rilke (XII, 174)
Edith Sitwell (XII, 271)
Dylan Thomas (XII, 273)*A Study of History* (first three volumes), Arnold Toynbee, 1934 (XII, 194)Abstract Art (XII, 268)
Picasso (XII, 269)

SURREALIST ART (XII, 444)

Architecture:

Architecture by Le Corbusier (XII, 265)
Bauhaus founded (XII, 172)

Sculpture:

Epstein
Henry Moore (XII, 269)

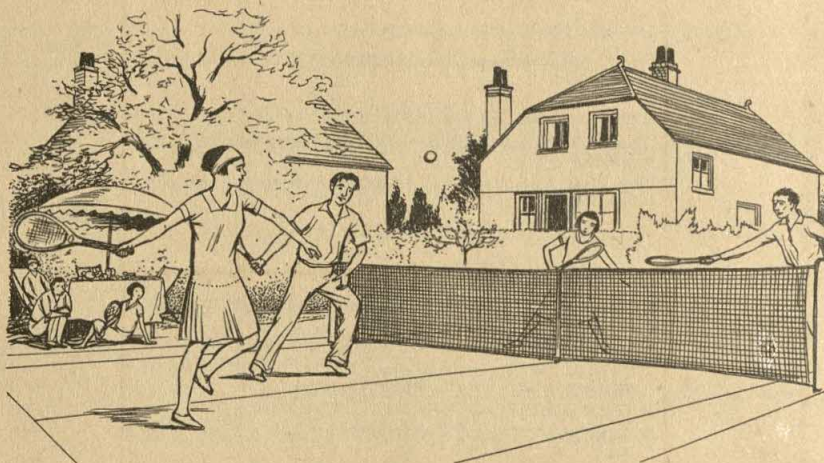
Music:

Vaughan Williams (XII, 38)
Schönberg (XII, 270)
Stravinsky (XII, 269)

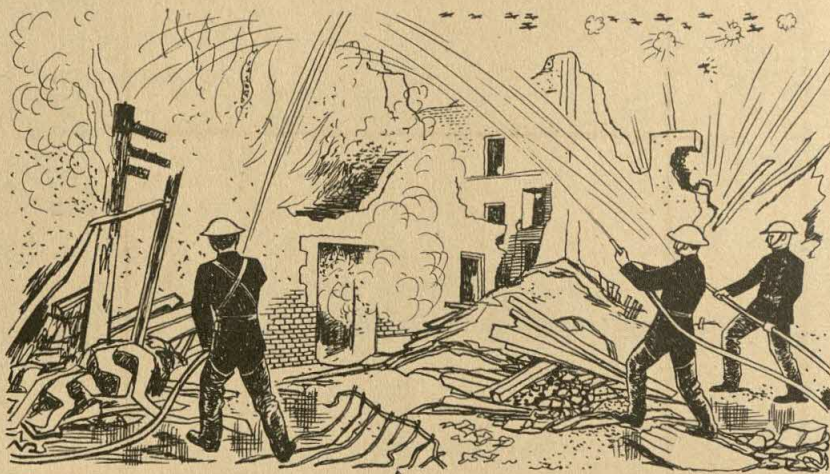
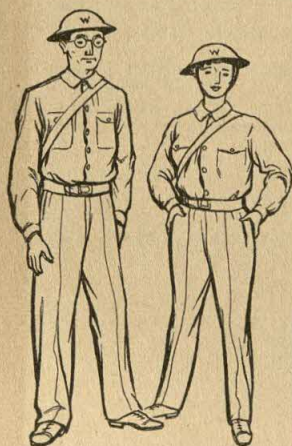
1945



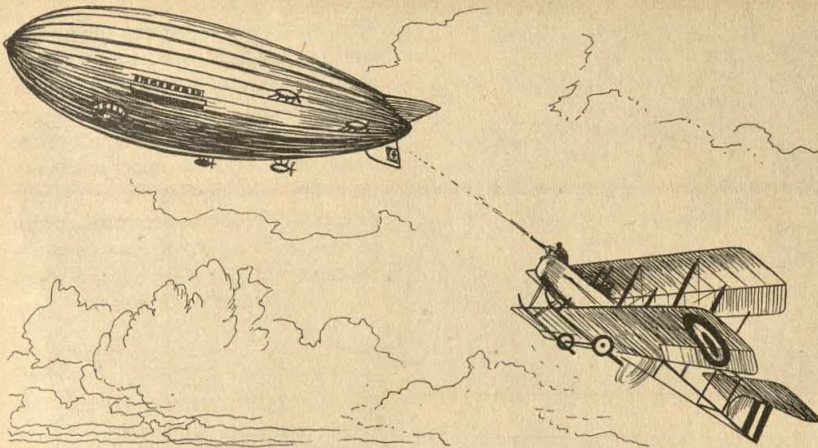
A FOOD QUEUE IN THE FIRST WORLD WAR



A TENNIS PARTY



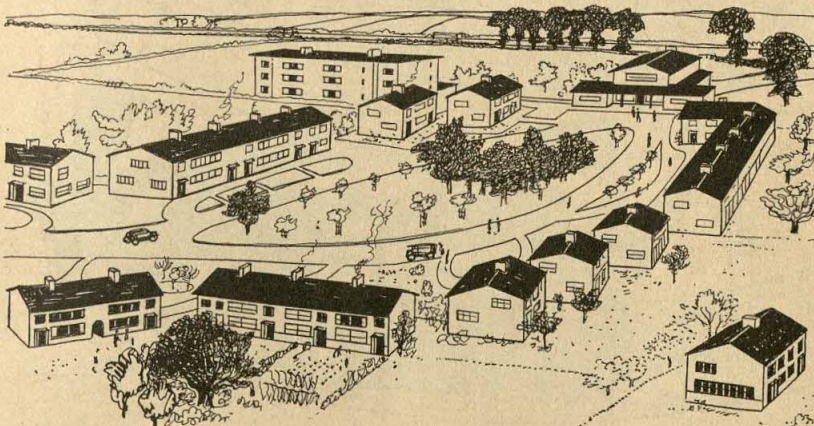
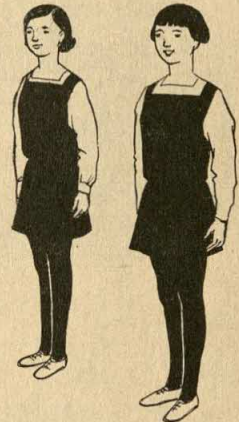
AN AIR RAID IN THE SECOND WORLD WAR



FIRST WORLD WAR: ZEPPELIN AND BIPLANE



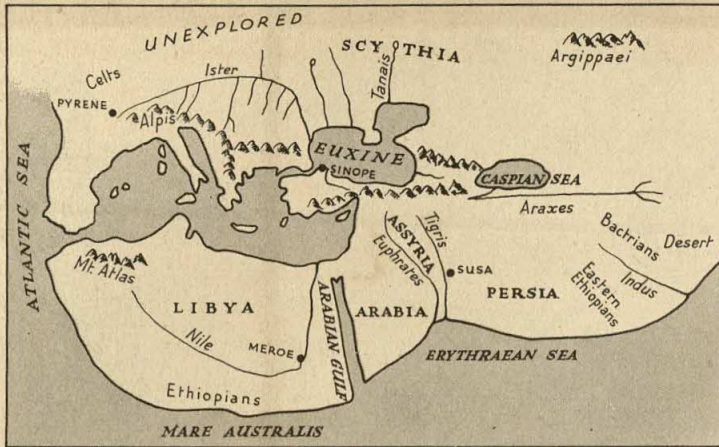
A HUNGER MARCH OF THE UNEMPLOYED



A MODERN HOUSING ESTATE

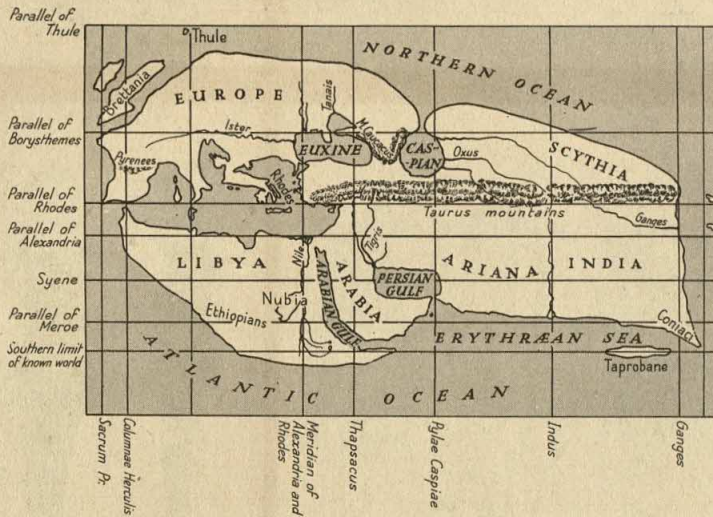


THE KNOWN WORLD



THE WORLD OF HERODOTUS, 450 B.C.

This map, besides showing the known world of the time, indicates the Greek idea of the symmetry of nature. Thus the west-east trend of the Danube (Ister) has to be balanced south of the Mediterranean by the upper reaches of the Nile, also flowing in an easterly direction. Herodotus accepted the idea of an outer sea beyond the Mediterranean world only when it was attested by actual voyages.



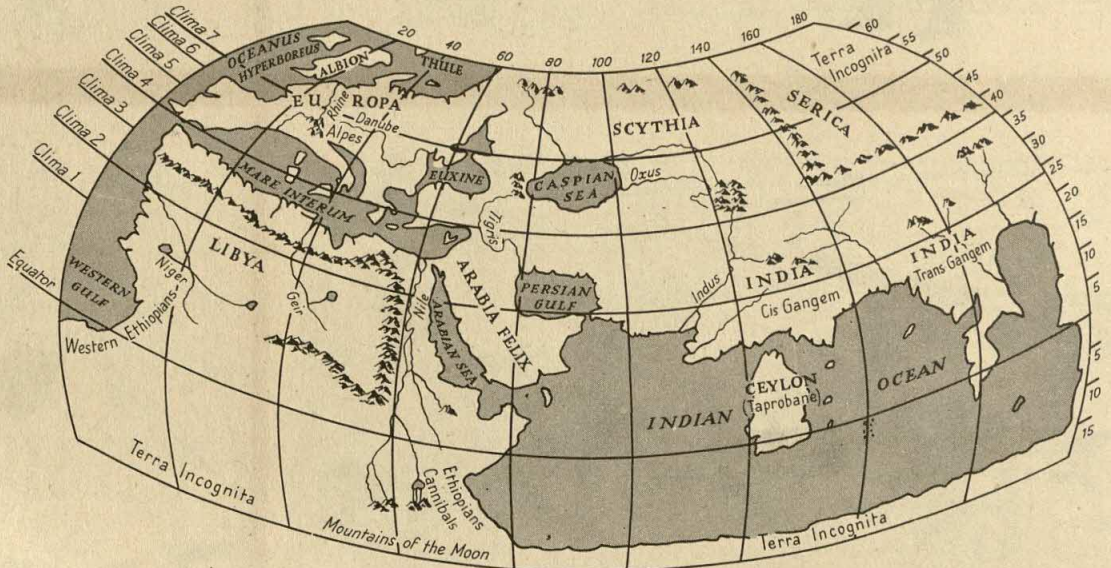
THE WORLD OF ERATOSTHENES 3rd CENTURY B.C.

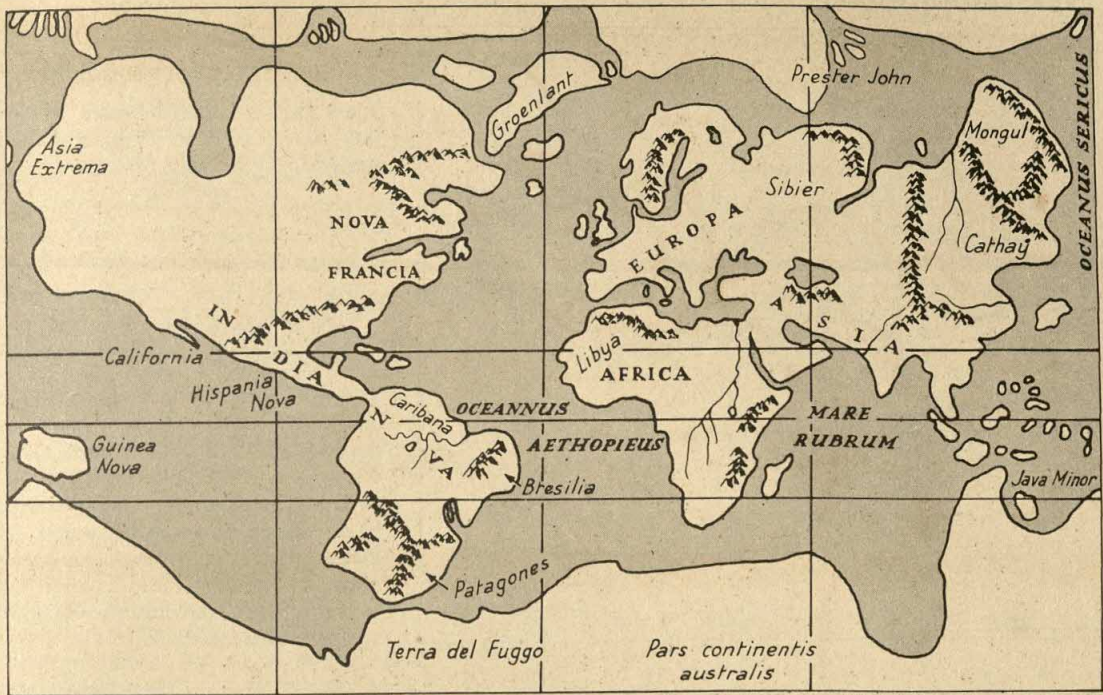
This map is notable because it has the first fairly accurate grid system and because it attempts to depict the area conquered and discovered by Alexander the Great. This map is based on medieval editions of Eratosthenes since none survived from classical times.

Below:

THE WORLD OF PTOLEMY, 2nd CENTURY A.D.

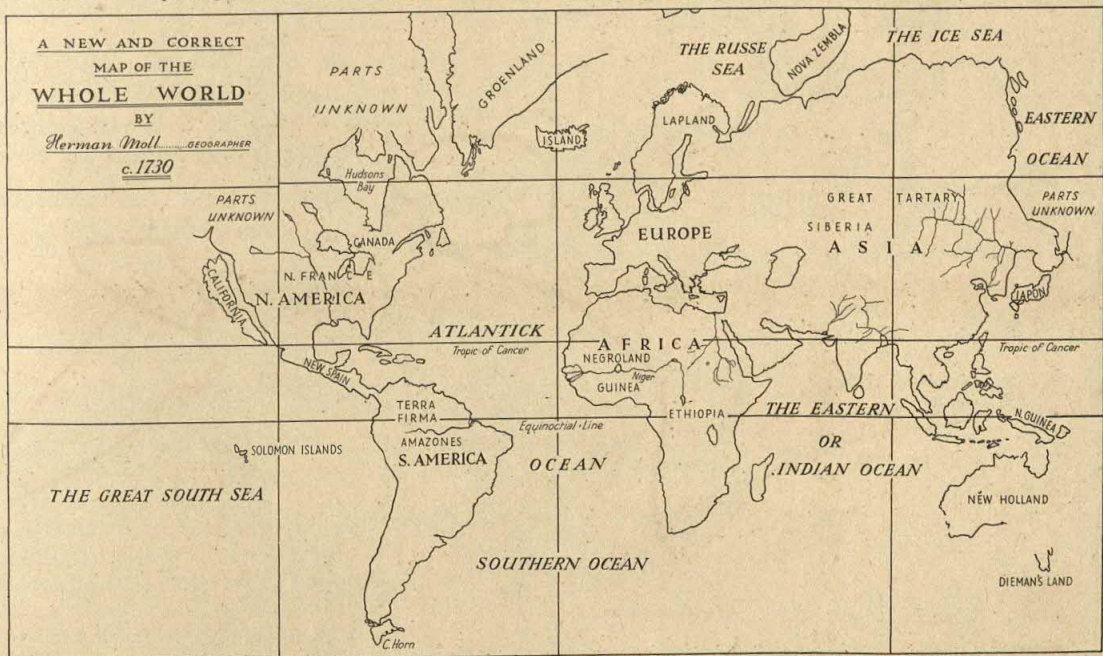
Ptolemy's lists of places with their supposed positions form the basis of this map.





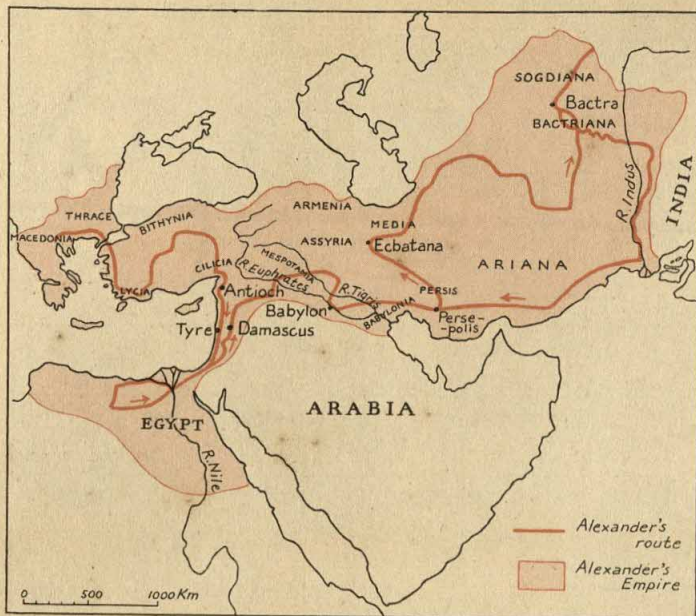
MERCATOR'S WORLD MAP, 1569

As Mercator was in close touch with Spanish and Portuguese navigators and cartographers, he was able to map their discoveries. Later geographers and explorers were greatly influenced by his ideas of a navigable north-west passage, a sea channel between Asia and America, and a large southern continent.



MAP OF THE WORLD BEFORE COOK'S EXPLORATIONS

Herman Moll (1680–1732) produced many atlases, none of which was original. They represented geographical knowledge before Cook explored New Zealand and the east coast of Australia and proved the idea of a large southern continent to be untrue.



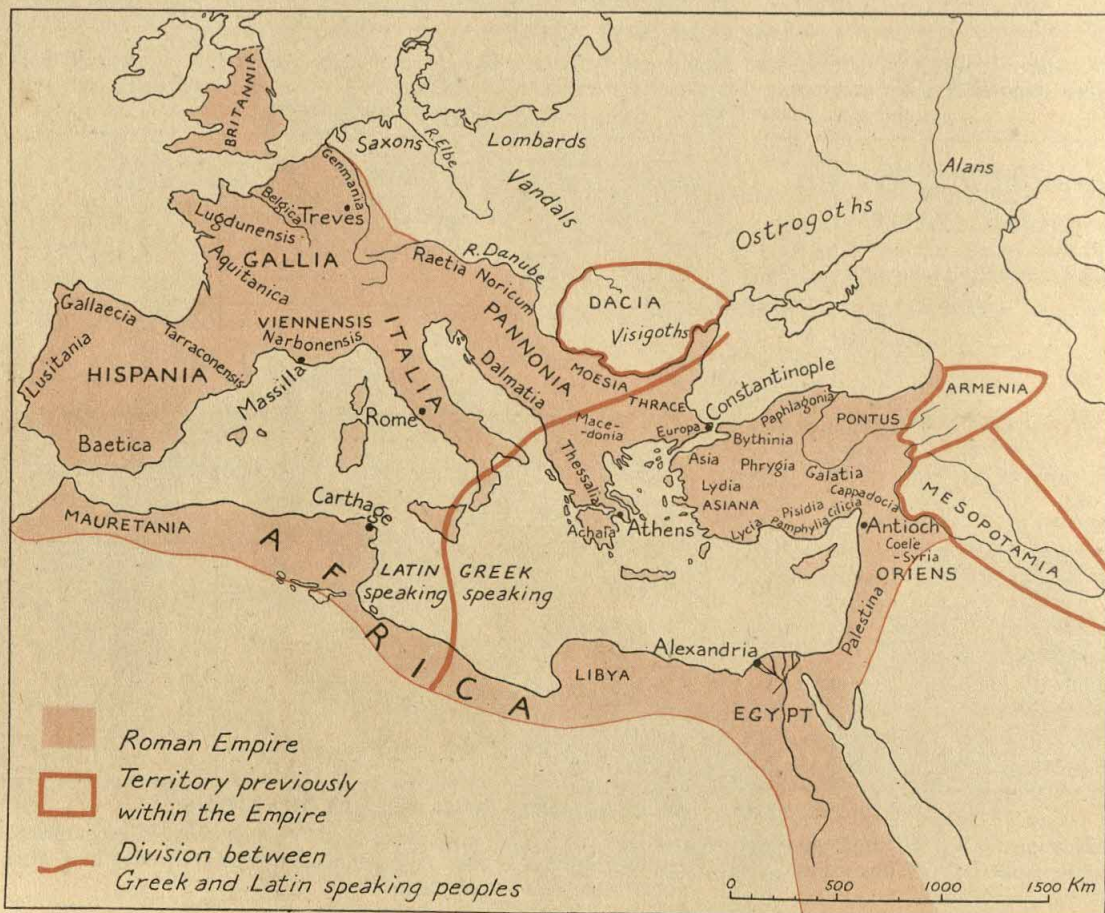
THE EMPIRE OF ALEXANDER THE GREAT

Alexander's conquests carried western influence to the river Indus, and for a period freed the West from the menace of Persia.

Below:

THE ROMAN EMPIRE UNDER THE EMPEROR CONSTANTINE

This was centred on the Mediterranean. The Rhine and Danube usually formed the northern boundary, though Dacia was within the Empire from A.D. 107 to 275. The eastern frontier, defended by no natural feature, suffered frequent Persian attacks, and Armenia and Mesopotamia were rarely effectively controlled by the Romans, even during the first two centuries A.D.



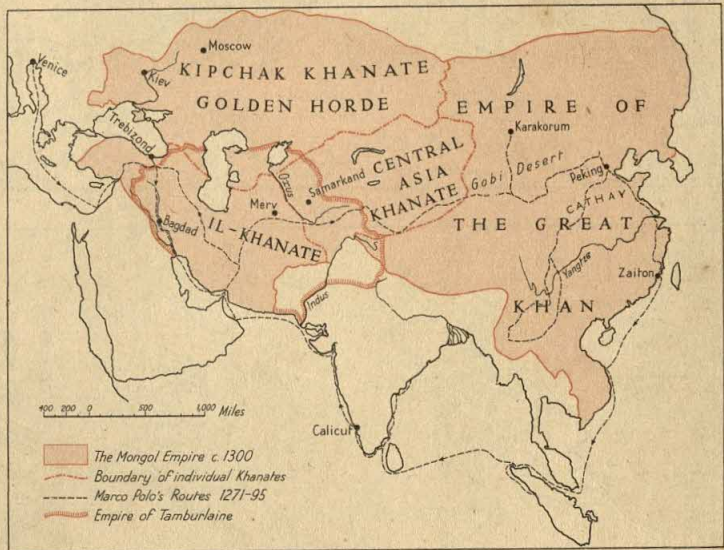
THE EMPIRES OF ISLAM, CHARLEMAGNE, AND BYZANTIUM, ABOUT 800

The Islamic Empire was cradled in the Arabian peninsula in the 7th century, and by the 8th century had gained Syria and Mesopotamia, the north coast of Africa, and Spain. In the east Islam overthrew the Persian Empire and spread to the Oxus and Indus rivers. Islam's extension in Europe was prevented by the growth of the Frankish Empire, which reached its greatest extent under Charlemagne, and by the Byzantine Empire.



THE MONGOL EMPIRE, ABOUT 1300

In the 13th century the Mongols united under Genghis Khan and from Karakoram conquered central Asia, Persia, Mesopotamia, and China. By 1242 they had devastated central and southern Russia, which remained subject to the Golden Horde until 1380. The Mongols, tolerant of all religions, made trade routes safe and permitted Christian missionaries and traders to penetrate to the Far East. So Marco Polo was able to reach Peking and work for Kublai Khan in China. In the mid-14th century the Mongol Empire split up, and the adventurer Tamburlaine was able to found an empire in central and south-west Asia.



THE OTTOMAN EMPIRE AT THE TIME OF MOHAMMED II, 1451-81

The growth of the Ottoman Empire was also facilitated by the decay of the Mongol Empire. The Ottomans, who were a dynastic group of Turks, controlled most of Asia Minor by the mid-15th century, and in 1453, with the capture of Constantinople, got possession of the Byzantine Empire. In the early 16th century Mesopotamia and Syria were added, and in 1521 Suleiman the Magnificent crossed the Danube, the previous frontier of the Empire, and took Hungary and most of Roumania, and in the east vanquished Armenia and Iraq.



GREAT EMPIRES



THE EMPIRE OF CHARLES V, 1555

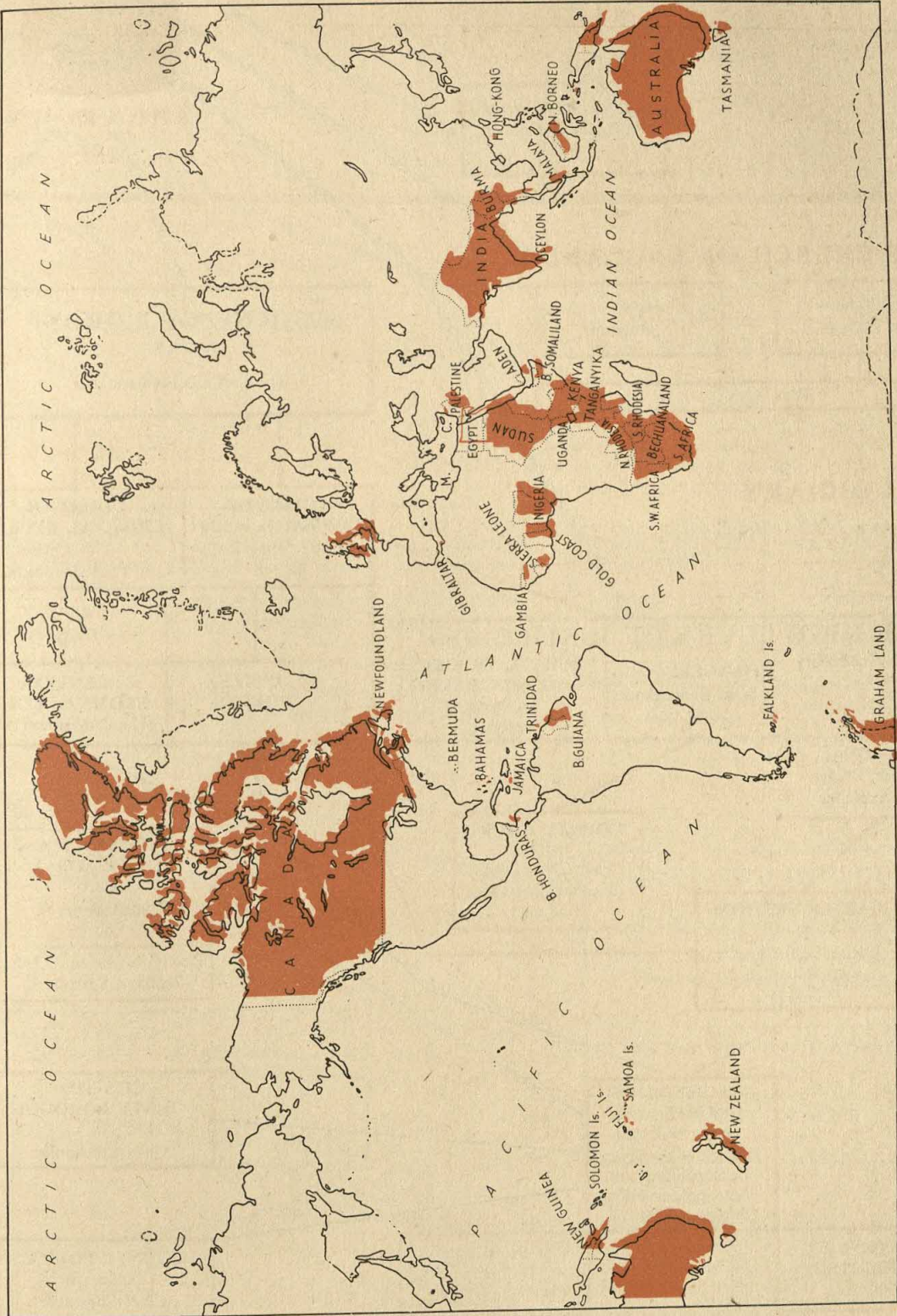
This was gained by accumulation. Charles V inherited Austria and the Netherlands as heir to the Hapsburgs, and the Spanish territories with the kingdoms of Naples and Sicily as heir to Ferdinand and Isabella. He was elected Emperor of the Holy Roman Empire in 1519.

Below:

THE EMPIRE OF NAPOLEON, 1800

This was gained by military conquest and was the most extensive in Europe since Roman times.







THE CROWN

Judicial Committee
of the Privy Council
(X, 31)

THE CHURCH OF ENGLAND

Archbishops
and Bishops

Deans of
Cathedrals

The Clergy (I, 126)

HOUSE OF LORDS

(X, 194, 30)

The Lord Chancellor (X, 218)

JUDICIARY

See LAW COURTS (X, 231); TRIAL (X, 464)

THE HIGH COURT OF JUSTICE (X, 184)

QUEEN'S BENCH
(X, 184)

Lord Chief Justice
(X, 219)

CHANCERY (X, 184)

Lord Chancellor
(X, 218, 195)

PROBATE, DIVORCE,
AND ADMIRALTY

(X, 134, 184)
President

DIVISIONAL
COURT (X, 30)
(for Appeals)

QUARTER SESSIONS

(X, 30, 358)

Justices of the Peace
or a Recorder
(X, 224, 358)

COUNTY COURT

(X, 115)

(for Civil cases)

County Court Judge
(X, 219)

COURT OF
APPEAL (X, 29, 219)
Master of the Rolls
(X, 219)

COURT OF
CRIMINAL APPEAL
(X, 30)
Lord Chief Justice (X, 219)

ASSIZE
COURTS
(X, 48)

CENTRAL
CRIMINAL COURT
(The Old Bailey) (X, 303)

METROPOLITAN
POLICE FORCE

(X, 321)

Commissioner of
Police

Detective Branch, C.I.D.,
Scotland Yard (X, 82)

MAGISTRATES'
COURTS (X, 256)

(Petty Sessions)

Justices of the Peace,
or Stipendiary, or
Metropolitan Police
Magistrate (X, 224)

CITY OR
COUNTY BOROUGH
POLICE (X, 320, 326)

Chief Constable

JUVENILE
COURTS

(X, 225)

Probation
Officer
(X, 343)

COUNTY POLICE

(X, 320, 326)

Chief Constable

THE BRITISH CONSTITUTION

(X, 63)

THE PRIVY COUNCIL (X, 342)
The Lord President

LEGISLATIVE

HOUSE OF COMMONS

(X, 192, 312)

The Speaker (X, 425)

EXECUTIVE

THE CABINET (X, 266)

THE PRIME MINISTER (X, 265)

*who is, in addition, the
First Lord of the Treasury*

*Some of the principal ministers,
the majority of whom have the status
of belonging to the Cabinet:*

HOME OFFICE Secretary of State for Home Affairs (X, 185)	FOREIGN OFFICE Secretary of State for Foreign Affairs (X, 162)	TREASURY Chancellor of the Exchequer (X, 284)	Secretary of State for COMMONWEALTH RELATIONS (X, 61)	Secretary of State for the COLONIES (X, 101)
Minister of DEFENCE	Secretary of State for SCOTLAND (X, 394)	President of the BOARD OF TRADE (X, 55)	Minister of EDUCATION (X, 268)	Minister of AGRICULTURE AND FISHERIES (X, 290)
First Lord of the ADMIRALTY (X, 3)	Secretary of State for WAR (X, 488)	Secretary of State for AIR (X, 12)	Minister of LABOUR AND NATIONAL SERVICE (X, 269)	Minister of HEALTH (X, 349)

LOCAL GOVERNMENT

Sheriff of the County (X, 409, 246)
Lord Lieutenant (X, 247, 256)

COUNTY COUNCILS

(X, 241, 249)

Chairman, Aldermen, and Councillors

URBAN DISTRICT COUNCILS

(X, 242)

RURAL DISTRICT COUNCILS

(X, 242)

PARISH COUNCILS

(X, 242, 310)

COUNTY BOROUGH COUNCILS

(X, 241, 249)

Lord Mayor, or Mayor,
and Corporation
(X, 86, 260)

CITY AND BOROUGH COUNCILS

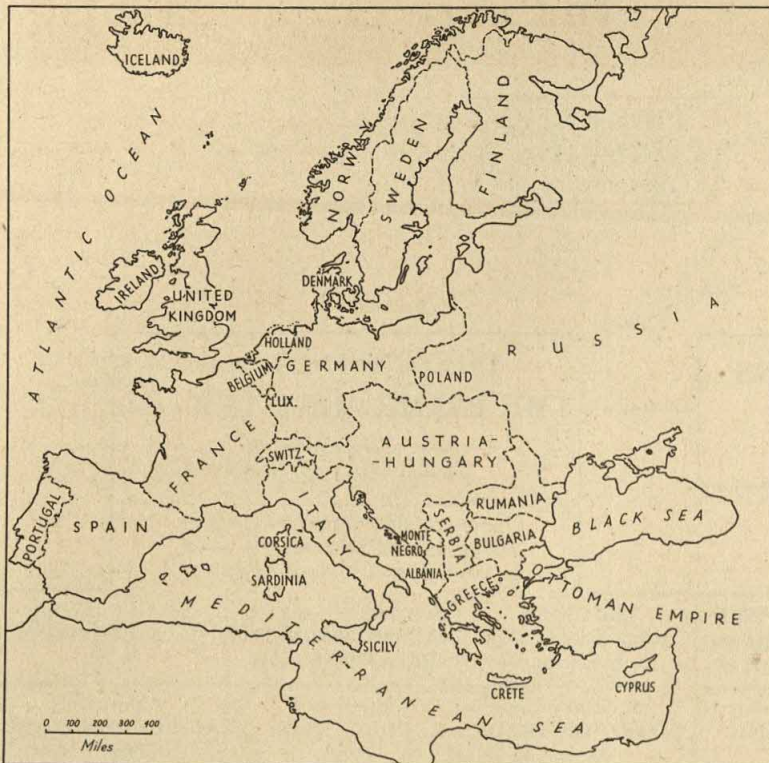
(X, 241, 249)

Mayor and
Corporation (X, 260)

KEY

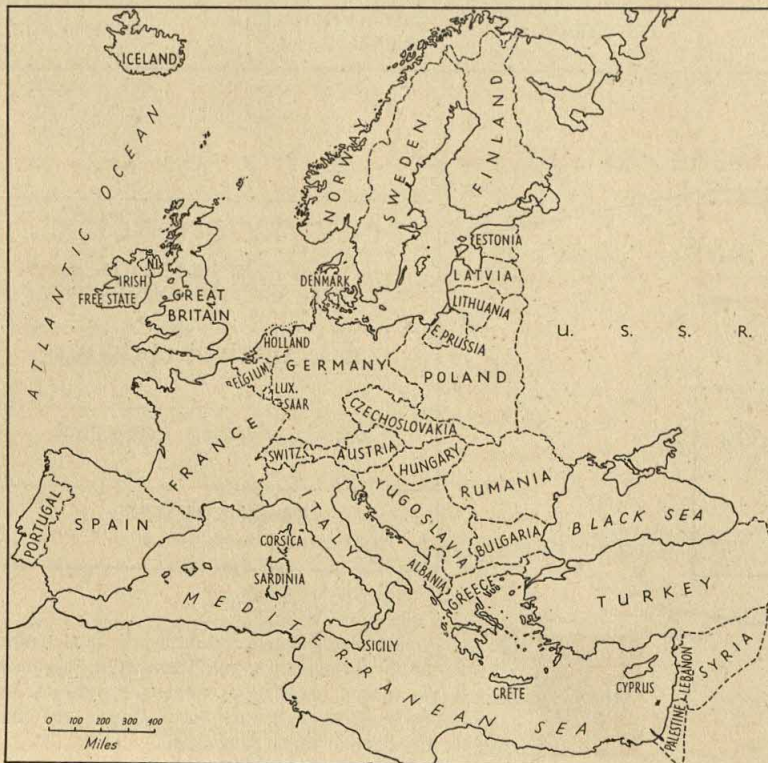
The chains show direct Crown appointments; those within red borders are permanent appointments, those in black borders are subject to election. Direct connexions are indicated by black lines; in the case of Courts, red lines show the direction in which appeals go.

EUROPE BEFORE AND AFTER WORLD WAR I



EUROPE IN 1914

Between 1816 and 1914 there were considerable changes in the map of Europe. Italy was united in one kingdom, and modern Germany, with Prussia as its leader, came into being. The decline of the Ottoman Empire allowed the Austro-Hungarian Empire to annex Bosnia and Herzegovina, and the Balkan countries of Roumania, Bulgaria, Serbia, Albania, and Greece to gain their freedom. Belgium and Holland separated and became independent kingdoms and in 1905 the union of Norway and Sweden was dissolved.



EUROPE IN 1926

Great changes came about in Europe after the First World War. Poland, Austria, and Hungary became separate states. The lizard-shaped republic of Czechoslovakia was created mainly of Czech- and Slovak-speaking peoples, though in the west were German-speaking peoples and in the east the Ruthenians, who spoke Russian. Yugoslavia was formed mainly of Serbs and Croats. East Prussia was separated from Germany by the Polish corridor and the free city of Danzig, and the states of Lithuania, Latvia, and Estonia were formed along the eastern coast of the Baltic.

MAIN EVENTS OF THE FIRST WORLD WAR, 1914-18

1914

July 28. Austria-Hungary declared war on Serbia one month after the murder of the Archduke Franz Ferdinand at Sarajevo.

August 1-3. Russia went to war in defence of Serbia, Germany in support of her ally Austria-Hungary, and France in support of her ally Russia.

August 4. German invasion of Belgium provoked British declaration of war.

August 23. British Expeditionary Force at Mons in Belgium.

August 26-30. Russian invasion of East Prussia routed by Hindenburg and Ludendorff at Tannenberg.

September 6-11. German advance into France held by French and British forces at the Battle of the Marne.

October 19. First Battle of Ypres.

October 12-November 11. Continuous line of trenches dug from Swiss frontier to sea.

Turkey entered the war on the side of Germany.

November 1. German sea victory at Coronel, Chile.

December 8. British sea victory at the Falkland Islands.

1915

January 19. First zeppelin (airship) raid on England.

April 22. Second Battle of Ypres begun; poison gas first used by the Germans in the west (used earlier against the Russians).

April 25. Anzacs (Australian and New Zealand Army Corps) landed in Gallipoli to force the Dardanelles.

May 6. British liner *Lusitania* sunk by German submarine with heavy loss of American (neutral) lives.

May 23. Italy entered the war on the side of the Allies.

May 26. Asquith formed Liberal-Conservative Coalition Ministry.

October 15. Bulgaria entered the war against Serbia, which was completely overrun.

December 17. Sir Douglas Haig succeeded Sir John French as Commander-in-Chief of British forces on the western front.

1916

January 8. Evacuation of the Gallipoli Peninsula completed; abandonment of the Dardanelles campaign.

February 21. The Germans launched a 6-month attack on Verdun, defended successfully by the French at tremendous cost.

May 31. Battle of Jutland fought at sea by Jellicoe against von Scheer.

June 4. Great four-month Russian attack against the Austrians in Galicia.

June 5. Lord Kitchener (Secretary for War) drowned on his way to Russia.

July 1. British offensive started on the Somme. Very heavy loss of life and only limited success.

August 28. Roumania entered the war on the side of the Allies, but was overrun by the Germans in December.

September 15. First use of tanks by the British in the Battle of the Somme.

December 7. Lloyd George replaced Asquith as Prime Minister.

1917

February 1. Germans began unrestricted submarine warfare.

March 9. Outbreak of the first (parliamentary and republican) Russian revolution.

April 2. United States of America declared war on Germany.

July 31. Start of the Third Battle of Ypres or Passchendaele; heavy British losses.

October 24. Italians defeated at Caporetto; British and French reinforcements sent to North Italy.

November 7. Outbreak of the second (Bolshevik) Russian revolution headed by Lenin and Trotsky.

November 20. Germans defeated by large-scale British tank attack at Battle of Cambrai.

December 3. Allenby captured Jerusalem from the Turks.

December 15. Russians signed Armistice of Brest-Litovsk with Germany.

1918

March 21. Germans launched great attack towards Amiens and nearly broke through the British Fifth Army.

March 26. French Marshal Foch given supreme Allied command on western front.

April 9. Second great German attack towards the Channel Ports.

April 23. St. George's Day naval attack on Zeebrugge mole.

May. American troops in action in France.

July 15-18. Last German attack, followed immediately by Allied counter-attack.

August 8. British advance began at Amiens.

September 12. American victory at St. Mihiel.

September 30. Surrender of Bulgaria.

October 30. Surrender of Turkey.

October 24-30. Italian defeat of Austrians at Vittorio Veneto.

November 4. Armistice with Austria.

November 9. German revolution; republic proclaimed.

November 11. Armistice with Germany.

1919

June 28. Peace Treaty with Germany signed at Versailles

(See also Vol. X, FIRST WORLD WAR)

MAIN EVENTS OF THE SECOND WORLD WAR, 1939-45

1936-39. PRELIMINARY EVENTS

March, 1936. Germany occupied the Rhineland.

March, 1938. Germany seized Austria.

September, 1938. Germany threatened Czechoslovakia.
Munich agreement to surrender German-speaking areas.

March, 1939. Germany seized rest of Czechoslovakia.
British and French guaranteed Polish independence.

August, 1939. Germany and Russia signed non-aggression pact.

1939

September 1. Germany invaded Poland.

September 3. Britain and France declared war on Germany.

September 17. Russians invaded eastern Poland.

September 28. Surrender of Warsaw to the Germans.

November 30. Russians attacked Finland.

December 13. German pocket battleship *Graf Spee* defeated by British cruisers off the River Plate.

1940

April 9. Germans invaded Denmark (which surrendered) and Norway.

April 10, 13. British naval successes at Narvik.

April 14. Allied landings in central and north Norway began.

May 10. Germany invaded Holland and Belgium.
Churchill replaced Chamberlain as Prime Minister.

May 14. German armoured forces broke through the French line near Sedan and began rapid advance to the Channel ports.
British Expeditionary Force retreated towards coast.

May 27. Belgian army surrendered.

June 2. Evacuation from Dunkirk completed.

June 8. Troops in Norway evacuated.

June 10. Italy joined Germany in the war.

June 24. Franco-German armistice signed.

June 30. Germans landed in Channel Islands.

July 3. British attacked French warships at Oran.

August 8-October 31. The Battle of Britain, daylight air attacks.

September 5. America gave Britain 50 destroyers in return for 99 years lease of naval bases in British colonies.

September 7. Beginning of the 'Blitz', night air attacks on London and industrial centres.

November 11. Fleet Air Arm attack on Italian battle-ships at Taranto.

December 9. Wavell began campaigns against the Italians in north-east Africa.

1941

March 11. America instituted 'Lend-Lease' system for supplying Britain.

March 28. British defeated Italian naval force off Cape Matapan.

April 6. British captured Addis Ababa, Abyssinia.
German invasion of Yugoslavia and Greece to support unsuccessful Italian campaign.

May 2. British force in Greece evacuated.

May 20. German airborne invasion of Crete.

May 24. H.M.S. *Hood* sunk by the *Bismarck*.

May 27. The *Bismarck* sunk.

June 22. Germany invaded Russia.

August 14. Atlantic Charter of peace aims issued by Roosevelt and Churchill.

October 17. Beginning of German threat to Moscow.

November. Russian winter counter-offensive saved both Moscow and Leningrad.

December 7. Japanese surprise air attack on Pearl Harbour, Hawaii.

America entered the war against Germany as well as Japan.

December 10. Japanese aircraft sank the *Prince of Wales* and the *Repulse*.

December 22. Big Japanese attack on the Philippines.

December 25. Japanese captured Hong Kong.

1942

February 15. Japanese captured Singapore.

February 27. Defeat of Allied naval force in the Battle of the Java Sea; Japanese occupied Java.

May 4-7. American aircraft defeated Japanese fleet in the Coral Sea.

May 5. British landed in Madagascar.

May 30. R.A.F.'s first '1,000-bomber' raid on Cologne.
Japanese completed conquest of Burma.

June 21. Fall of Tobruk in Africa; threat to Egypt and Suez Canal.

July 1. Germans captured Sebastopol.

August 19. Dieppe Raid involving heavy Canadian losses.

September 1. Germans reached Stalingrad.

October 23-November 3. Montgomery defeated Rommel at El Alamein; Germans retreated from Egypt.

November 8. American and British forces under Eisenhower landed in French North Africa.

1943

January 31. Germans defeated at Stalingrad, with the surrender of a field marshal and 16 generals.

May 13. Surrender of German and Italian forces in Tunisia.

May 16. R.A.F. breached the Möhne and Eder dams.

July 10. British, American, and Canadian forces invaded Sicily.

July 24. Start of 10-day Anglo-American air attack on Hamburg.

August 23. Russians recaptured Kharkov.

September 3. British troops landed on the Italian mainland.

September 25. Russians recaptured Smolensk.

October 3. Anti-Fascist Italian government signed armistice.

September–October. American and Australian forces under MacArthur victorious in New Guinea.

November 6. Russians recaptured Kiev.

November 28. Opening of Teheran Conference (Roosevelt, Stalin, and Churchill).

December 26. German battle cruiser *Scharnhorst* sunk.

1944

January 22. Landings made at Anzio-Nettuno to outflank the German armies in Italy.

January 31. Americans attacked the Marshall Islands.

May 9. Russians recaptured Sebastopol.

May 18. Capture of Monte Cassino.

June 4. Allied forces under Alexander entered Rome.

June 6. 'D-day' landings in Normandy under Eisenhower.

June 13. Flying-bomb attacks on south-east England begun.

June 17. Russian offensive on east.

July 20. German officers attempted to kill Hitler as a peace-move.

July 27. American army launched an attack from Normandy across northern France.

August 15. New Allied landings on the French Riviera coast.

August 23. Liberation of Paris.

September 1. Supreme Commander (Eisenhower) transferred H.Q. to France.

September 3. Liberation of Brussels.

September 13, 19. Armistices granted to Roumania and Finland.

September 17–26. Allied airborne attack at Arnhem.

September 28. Armistice granted to Bulgaria.

October 14. British liberated Athens.

October 25. Japanese fleet heavily defeated at Battle of Leyte Gulf.

November 12. German battleship *Tirpitz* sunk by R.A.F. in Tromsø Fiord.

December 16. Germans under von Runstedt launched surprise counter-attack in the Ardennes.

1945

January 12. Start of huge Russian offensive in East Prussia and Poland.

February 4. Opening of Yalta Conference (Roosevelt, Stalin, and Churchill).

February 12. Budapest captured by the Russians.

March 7. Americans crossed the Rhine at Remagen.

March 20. Anglo-Indian forces captured Mandalay in Burma.

April 1. Americans landed on Okinawa Island.

April 18. Death of President Roosevelt.

April 13. Russians captured Vienna. Rapid advances on western front.

April 25. American and Russian forces linked up at Torgau on the Elbe.

April 28. Mussolini killed by partisans.

May 1. Hitler killed himself in Berlin.

German armies in Italy and Tyrol surrendered.

May 2. Berlin captured by the Russians.

May 3. Rangoon recaptured.

May 4. German armies in N.W. Germany, Holland, and Denmark surrendered to Montgomery at Lüneburg Heath.

May 7. Final German surrender signed at Rheims.

May 8. VE-Day celebrated.

June 26. United Nations Charter signed at San Francisco by 50 nations.

July 16. First atom bomb test, in New Mexico.

July 17. Opening of the Potsdam Conference (Truman, Stalin, Attlee, Churchill).

August 6, 9. Atomic bombs dropped on Hiroshima and Nagasaki.

August 8. Russia entered the war against Japan.

August 10. Japanese surrendered.

September 2. Armistice signed with Japan.

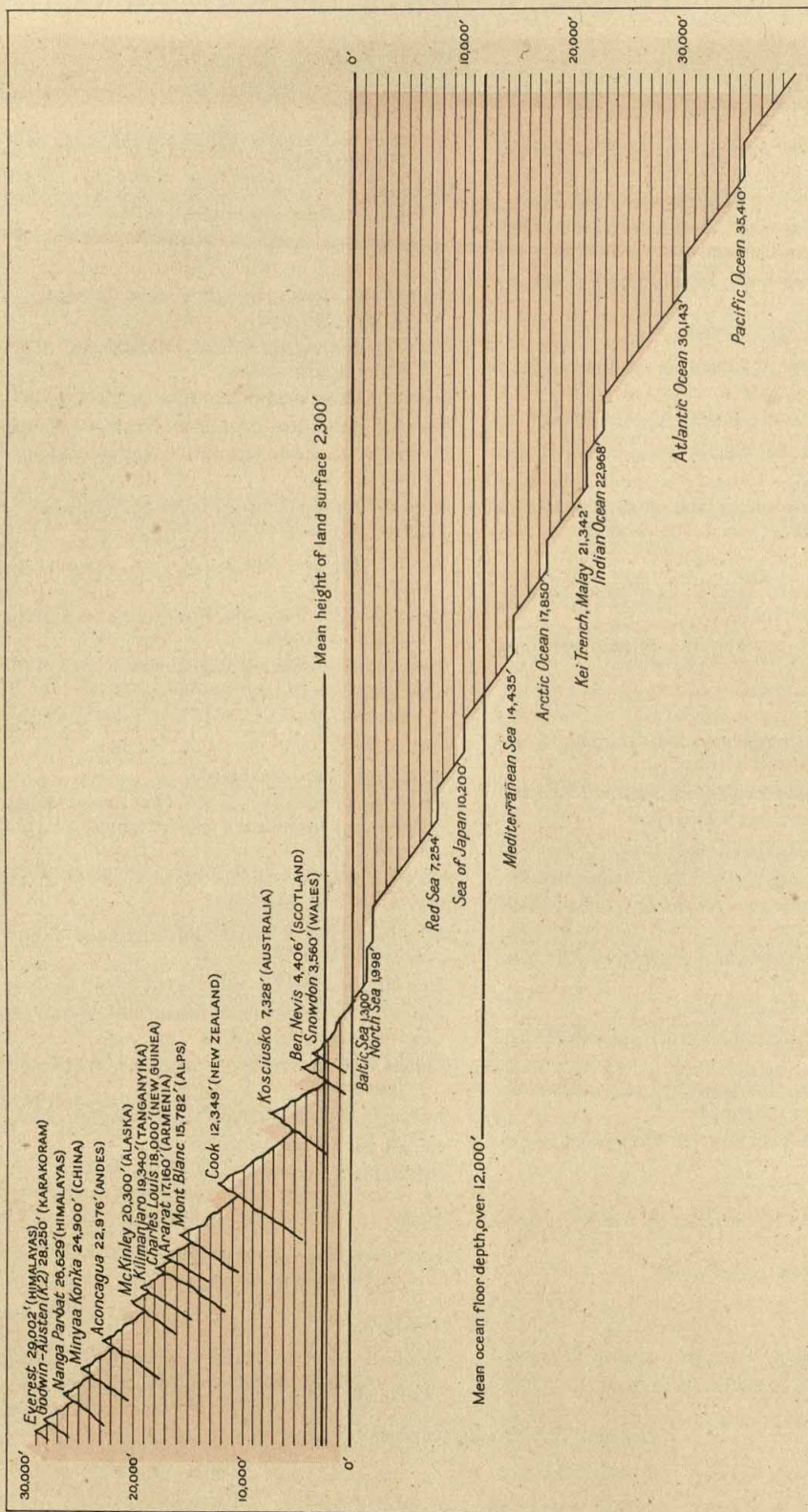
1946

November 16. Leading German war criminals executed after Nuremberg Trials.

1947

February 10. Peace treaties signed with Italy, Finland, Roumania, Bulgaria, and Hungary.

(See also Vol. X. SECOND WORLD WAR)



MOUNTAIN HEIGHTS AND OCEAN DEPTHS

FAMILIES OF FLOWERING PLANTS

THE Plant Kingdom, like the Animal Kingdom, is divided into several large sections. Mosses, for example, belong to a different section from flowering plants, and the reason for this is as obvious as is that for putting fishes and insects into different sections of the Animal Kingdom. Each section is for convenience further divided into smaller groups, which are known as families.

There are more than 200 families of flowering plants, of which about 120 are represented in Britain. Many of these families are represented only by very uncommon plants or by only one species; but some forty or more different families include quite common wild flowers or well-known garden flowers.

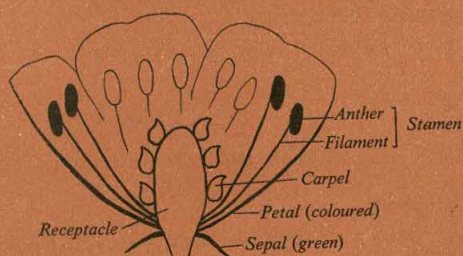
Plants are grouped because they have certain characters in common, although superficially they may look very different from each other. For instance, all plants in the Wallflower family have flowers with four petals and two short and four long stamens, and because they both have these characters Wallflowers and Cabbages are put together in the same family. The most usual distinguishing characters are the shape and arrangement of the parts of the flower, and the type of fruit. For some families, such as the Cow Parsley family, the shape and arrangement of the leaves is a distinguishing feature. The following tables give some of the distinguishing characteristics of thirty-eight families which contain familiar British plants. They will explain, for example, why Strawberries, Meadow-sweet, and Apples all belong to the same family as Roses. In many cases the 'family likenesses' are fairly easy to see, especially after a little practice. Sometimes, however, the distinguishing features can be seen only with a microscope. It is, of course, possible to find some flowering plants which do not fit into any of the families in these tables, since they are intended only as an introduction to flower identification and are therefore confined to the better-known and more easily distinguished families. For more detailed identification it will be necessary to use a flower book or flora. Some practice in using these tables should act as a convenient introduction to the use of a flora.

For convenience the families in these tables have been grouped together under six headings, as follows:

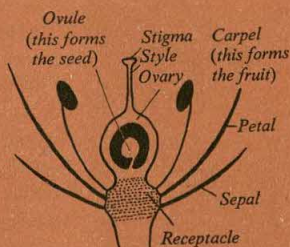
- (1) Sepals and petals different; petals not joined together; flowers symmetrical.
- (2) Sepals and petals different; petals joined together; flowers symmetrical.
- (3) Sepals and petals different; flowers not symmetrical.
- (4) Sepals and petals alike, three of each.
- (5) Plants with small, inconspicuous flowers.
- (6) Important families not included in the other tables.

A study of the structure of the flowers of an unknown plant should make it possible to decide into which one of the first five groups the plant fits, and within this group to which family it belongs. The sixth group contains only three important families—the daisies, grasses, and sedges—which do not fit into any of the other groups, but which contain many well-known and common species.

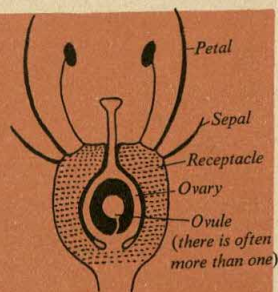
To use the key it is necessary to know the names of the common kinds of fruit and the names of the different parts of a flower. A diagram of a section through a buttercup flower is given below, with all the parts named, and also two diagrams which illustrate the terms 'inferior ovary' and 'superior ovary', and show from which part of the flower the fruit is formed. If the flowers are rather small, it is a great help to use a hand lens, or magnifying glass, in order to see the parts. It may also be necessary to take one or two flowers to pieces in order to inspect the parts inside, especially the stamens, which are not always easy to see. Readers are strongly recommended, before using these tables, to make themselves familiar with a few of the basic articles on plant structure in Volume II of this encyclopaedia—in particular, with the articles FLOWERS, FRUITS, SEEDS, LEAVES, STEMS, ROOTS, and REPRODUCTION IN PLANTS.



Diagrammatic section of a Buttercup



Diagrammatic section of a flower with superior ovary



Diagrammatic section of a flower with inferior ovary

GROUP ONE

Sepals and petals different
Petals not joined together
Flowers symmetrical



Ranunculaceae (Buttercup)

Numbers of petals and sepals vary considerably.

Some flowers, e.g. Monkshood and Delphinium, are not symmetrical.

Stamens are always very numerous, and there are often several carpels.

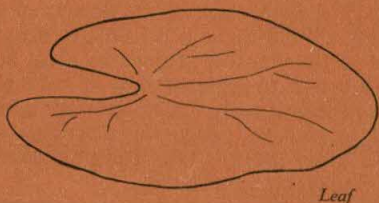
Sepals often coloured like petals.

Petals sometimes modified to form nectaries.

Fruit always one of two kinds:

- (a) Achenes—Buttercup, Anemone, Clematis, Celandine.
- (b) Follicles—Kingcup, Aconite, Columbine, Monkshood, Delphinium.

Many species are poisonous.



Leaf

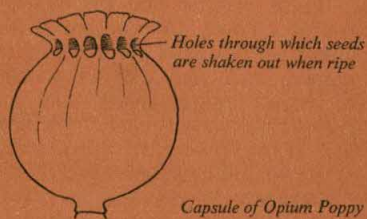
Nymphaeaceae (Water-lily)

Water plants with large floating leaves.

Stamens numerous.

Two types of flower:

- (a) Many petals, usually floating. White Water-lily, cultivated blue or pink Lotuses.
- (b) Few petals, raised above water. Yellow Water-lily.



Capsule of Opium Poppy

Papaveraceae (Poppy)

Sepals two, which fall off when the flower opens.

Petals four.

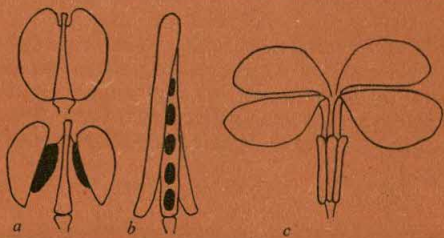
Stamens numerous.

Fruit a capsule.

A milky juice exudes from the cut stem.

The dried juice of the Opium Poppy forms opium.

Poppies, Greater Celandine.



Cruciferae (Wallflower)

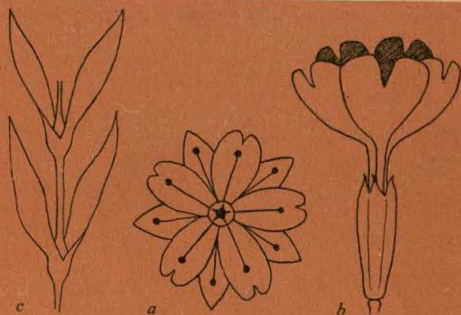
Sepals four.

Petals four, spreading out like a Maltese cross (c).

Stamens six, four long and two short.

Fruit a specialized capsule:

- (a) Silicula—Shepherd's Purse, Cress, Candytuft, Honesty, Alyssum.
- (b) Siliqua—Cabbage, Mustard, Radish, Watercress, Stock, Wallflower.



Caryophyllaceae (Campion)

Leaves in pairs, the stems often being swollen at the leaf joints (c).

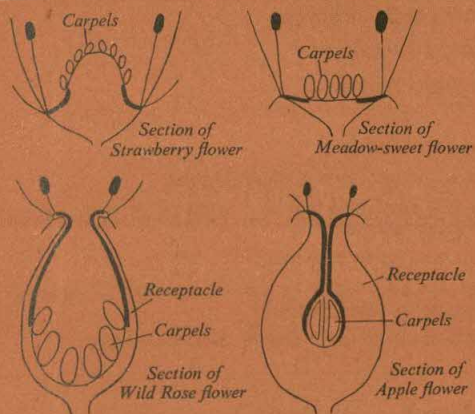
Sepals and petals five.

Stamens ten.

Fruit a capsule, with the seeds attached to a central column inside.

Two types of flower:

- (a) Flower open and shallow; sepals free—Chickweed, Stitchwort, Spurry.
- (b) Flower tubular; sepals joined—Campion, Bladder Campion, Pink.



These sections are all very diagrammatic. The extended region of the receptacle is shown as a heavy black line.

Rosaceae (Rose)

A very variable family including trees, shrubs, and herbs.

Sepals and petals five; often five extra green lobes outside sepals (epicalyx).

Stamens five, ten, or numerous.

Extended region of receptacle between the carpels and the other parts of the flower.

Three groups according to the shape of the receptacle:

(a) Receptacle convex; fruit either dry or fleshy:

(1) Dry—Blackberry, Raspberry, Silverweed;

(2) Fleshy—Strawberry.

(b) Receptacle flat; fruit dry—Meadow-sweet.

(c) Receptacle concave, enclosing carpels and seeds; fruit generally fleshy—Rose, Apple, Plum, Pear, Hawthorn, Mountain Ash, Burnet.



Geraniaceae (Geranium)

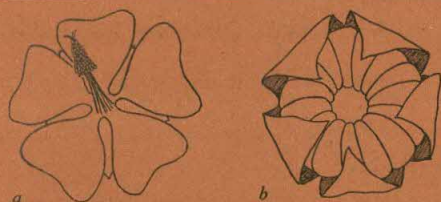
Sepals and petals five.

Stamens ten.

Flower usually pink or mauve.

Style long; it elongates as the fruit ripens (a) and splits when it is ripe (b).

Storksbill, Cranesbill, Geranium.



Malvaceae (Mallow)

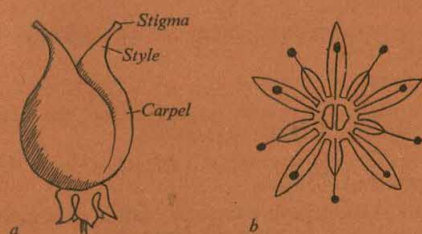
Sepals and petals five.

Stamens numerous, the filaments uniting to form a spike in the middle of the flower (a).

Fruit a ring of one-seeded nutlets, protected by the sepals (b).

Mallow, Marsh Mallow, Hollyhock.

Tropical Cotton Shrub belongs to this family.



Saxifragaceae (Saxifrage)

Small plants with leaves often thick and usually in a rosette, and flowers starry (b).

Sepals and petals five.

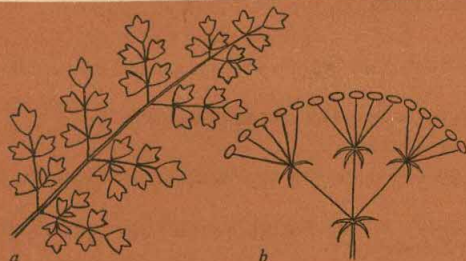
Stamens five or ten.

Carpels two, tapering into the styles (a).

Fruit a capsule.

London Pride, Saxifrage.

This family is easily confused with CRASSULACEAE (Stone-crop), whose flowers have five carpels.



Umbelliferae (Cow Parsley)

Leaves pinnately divided (a).

Small flowers in groups (umbels) (b).

Plants have tap-roots, which are often swollen to store food for winter.

Parsley, Sea Holly, Hemlock, Celery, Carrot, Parsnip.

GROUP TWO

Sepals and petals different

Petals joined together

Flowers symmetrical

Ericaceae (Heather)

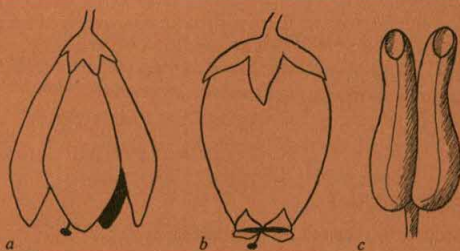
Mostly small, evergreen, moorland shrubs.

Flowers usually small and bell-like, often rather waxy (Rhododendron is an exception).

Stamens twice as many as petals.

Pollen shed through holes at top of anthers (c) instead of through slits, as in other families.

Ling (a), Bell Heather (b), Bilberry, Rhododendron.



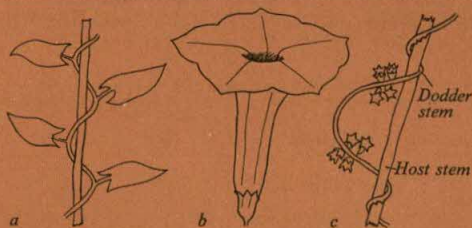
Convolvulaceae (Convolvulus)

Climbing plants with spirally twisting stems (a).

Flower funnel-shaped (b).

Fruit a capsule.

Bindweed, Convolvulus, Morning Glory, Dodder (a parasitic plant) (c).



Campanulaceae (Canterbury Bell)

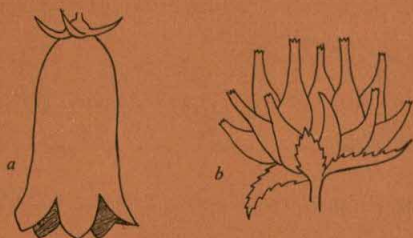
Flowers usually bell-shaped.

Ovary inferior.

Two types of flower:

(a) Large and few on stalk—Canterbury Bell, Bellflower, Harebell.

(b) Small, in compact heads—Round-headed Rampion.



Solanaceae (Potato)

Small shrubs or large, rank-growing plants; many species are very poisonous.

Sepals and petals five.

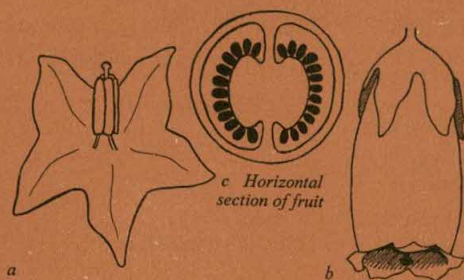
Fruit a capsule or berry, consisting of two chambers with numerous seeds (c).

Two types of flower:

(a) Petals spreading, stamens joined round the style—Potato, Tomato, Woody Nightshade.

(b) Flower bell-shaped, stamens not joined—Deadly Nightshade, Henbane, Tomato.

N.B. There is an anatomical character, visible only under a microscope, in common between the two types.



Primulaceae (Primrose)

Sepals five.

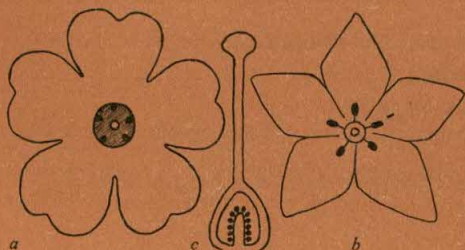
Petals five, joined at the bottom to form a tube but spreading at the top.

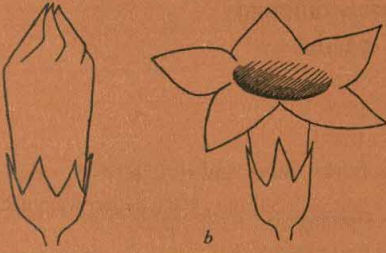
Stamens five, opposite petals instead of sepals (a, b).

Stigma knob-shaped (c).

Fruit a capsule, with numerous small seeds attached to a central column (c).

Primrose, Cowslip, Polyanthus (a), Yellow Loosestrife, Cyclamen, Scarlet Pimpernel (b).





Gentianaceae (Gentians)

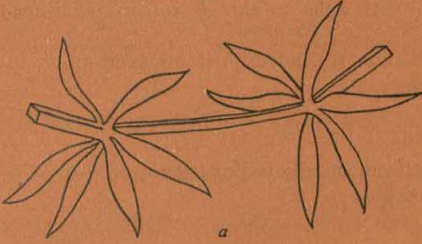
Plants with paired leaves, usually without a leaf-stalk.

Sepals and petals five.

Petals joined at the bottom to form a tube; upper parts overlap spirally in bud (a), and spread out as the flower opens (b).

Fruit a capsule, containing numerous tiny seeds.

Gentian, Centaury, Yellowwort.



Rubraceae (Bedstraw)

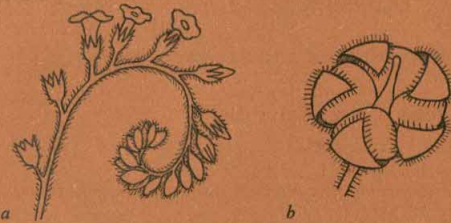
Stems square, bearing leaves in whorls (a).

Flowers very tiny, with four white or yellow petals.

Sepals minute or absent.

Ovary inferior.

Bedstraw, Woodruff, Madder, Goosegrass.



Boraginaceae (Forget-me-not)

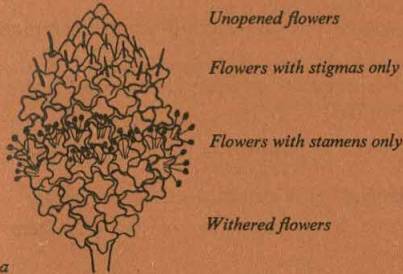
Plants hairy and rough to the touch.

Flower stalk tightly curled in bud, and uncurling as flowers open (a).

Sepals, petals, and stamens five.

Fruit four nutlets enclosed by calyx (b).

Forget-me-not, Borage, Comfrey, Viper's Bugloss, Hound's Tongue, Lungwort.



Plantaginaceae (Plantain)

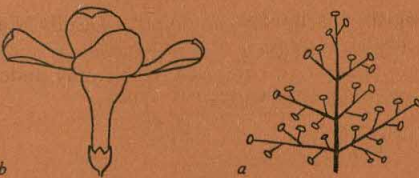
Leaves conspicuously veined and in a rosette.

Flower stalk leafless.

Flowers very tiny and grouped into compact heads.

Flowers open gradually from the bottom of the head upwards.

Stigmas appear before stamens to prevent self-pollination (a).



Oleaceae (Lilac)

Trees or shrubs with flowers borne in large groups (a).

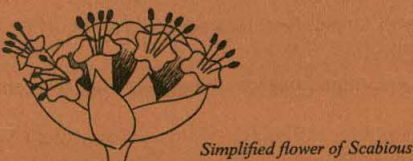
Leaves in pairs.

Sepals four and very small.

Petals four, joined at the bottom to form a tube (b).

Stamens two.

Lilac, Privet, Ash (wind-pollinated flowers with no petals).



Dipsacaceae (Scabious)

Leaves paired.

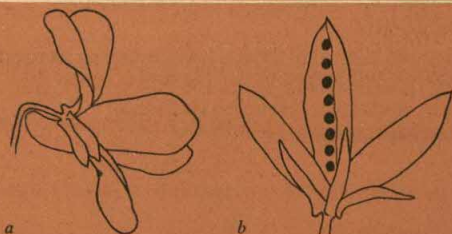
Flowers grouped together in a head, as with COMPOSITAE.

Stamens hang conspicuously out of the flowers, unlike Compositae.

Scabious, Teasel.

GROUP THREE

Sepals and petals different
Flowers not symmetrical



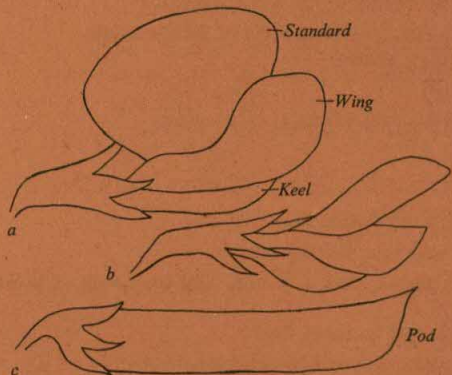
Violaceae (Violet)

Sepals five.

Petals five, the lowest petal having a spur in which nectar collects (a).

Fruit a capsule opening into three valves (b).

Violet, Pansy.



Papilionaceae (Pea)

Family includes trees, shrubs, and herbs, some with climbing tendrils.

Petals five, with characteristic arrangement: standard, wings, and keel (a and b).

Stamens ten, with filaments joined to form a tube round the carpel:

- (1) All ten filaments fused—Lupin, Laburnum, Gorse, Broom.
- (2) Nine filaments fused and one free—Pea, Vetch, Clover, Sainfoin.

Fruit a pod (c).



Labiatae (Deadnettle)

Stems square and leaves paired (a).

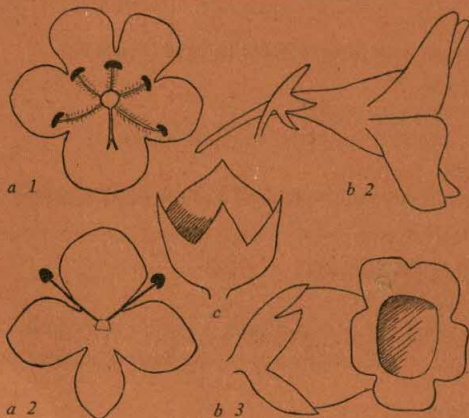
Sepals five, joined.

Petals five, joined at the bottom to form a tube, and divided at the top into an upper lobe or hood (two petals) and a lower lobe or lip (three petals) (b).

Stamens four.

Fruit four 'nuts' enclosed in calyx (c).

Deadnettle, Ground Ivy, Catmint, Sage, Mint, Bugle.



Scrophulariaceae (Foxglove)

Distinguished from LABIATAE by the fruit, which is always a capsule (c).

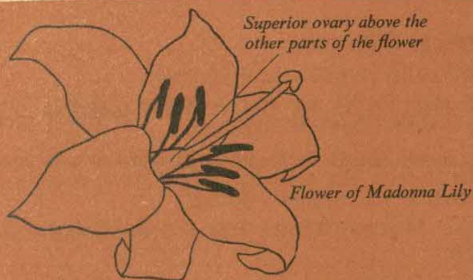
Sepals and petals usually five, joined.

Flowers, two main groups:

- (a) Flowers almost symmetrical:
 - (1) With five stamens—Mullein.
 - (2) With two stamens and four petals—Speedwell.
- (b) Flowers not symmetrical, with four stamens:
 - (1) Flowers hooded—Lousewort, Yellow and Red Rattle, Eyebright.
 - (2) Mouth of flower closed—Toadflax, Snapdragon.
 - (3) Mouth of flower open—Foxglove, Figwort.

GROUP FOUR

Sepals and petals alike, three of each

**Liliaceae (Lily)**

Herbaceous plants with underground bulbs or rhizomes.

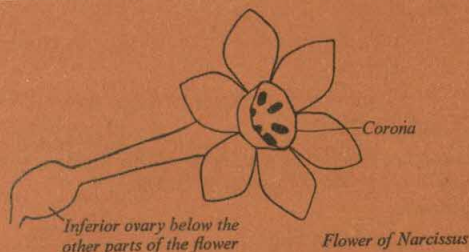
Sepals and petals coloured.

Stamens six.

Ovary superior (distinguishing feature from AMARYLLIDACEAE).

Fruit two types:

- (1) A capsule—Lily, Tulip, Hyacinth, Onion, Star of Bethlehem.
- (2) A berry—Lily of the Valley, Solomon's Seal, Asparagus.

**Amaryllidaceae (Daffodil)**

Herbaceous plants with bulbs and long, narrow leaves.

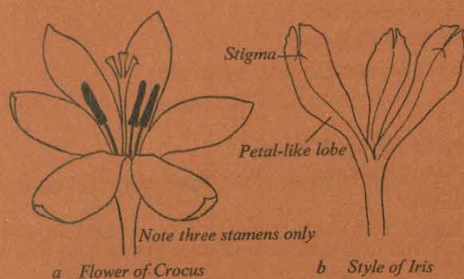
Sepals and petals coloured; some flowers have a corona—a coloured ring inside the petals.

Stamens six.

Ovary inferior (distinguishing feature from LILIACEAE).

Fruit a capsule.

Daffodil, Narcissus, Snowdrop.

**Iridaceae (Iris)**

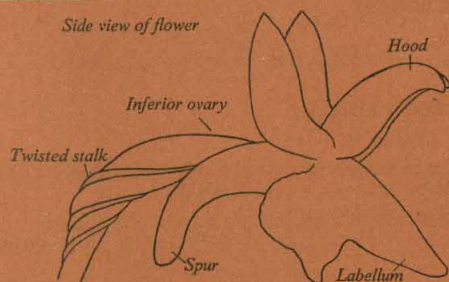
Herbaceous plants with bulbs, corms, or rhizomes.

Stamens three (distinguishing feature from AMARYLLIDACEAE) (a).

Ovary inferior.

Fruit a capsule.

Iris (style flattened and petal-like, is divided into three lobes, each covering a stamen) (b), Crocus, Gladiolus.

**Orchidaceae (Orchid)**

Flowers not symmetrical:

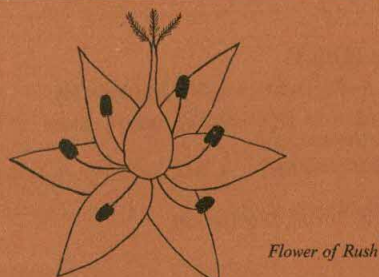
Lower petal forms a lip (labellum).

Upper petals and sepals often form a hood, protecting the stamens and stigma.

Flower sometimes spurred.

Ovary inferior.

Ovary and flower stalk twisted.

**Juncaceae (Rush)**

Flowers small, inconspicuous, and in loose or compact groups.

Stamens six.

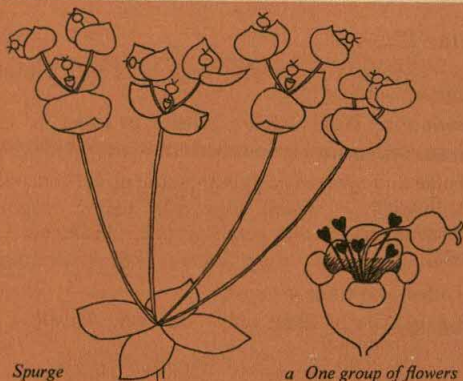
Fruit a capsule.

Leaves of two types:

- (1) Leaves and stems round—Rushes.
- (2) Leaves flat, grass-like and often hairy—Woodrush.

GROUP FIVE

Plants with small, inconspicuous flowers



Spurge

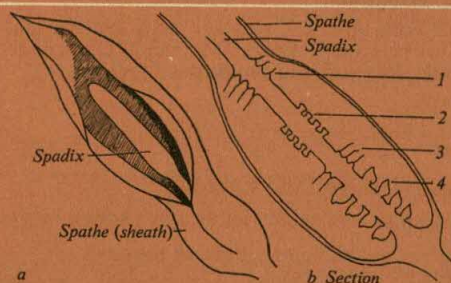
a One group of flowers

Euphorbiaceae (Spurge)

Flowers have either carpels or stamens only:

- (1) Each plant carries one type of flower only. No milky juice in stem—Dog's Mercury.
- (2) Each plant carries both types grouped within green bracts to look like a single flower (a). A milky juice exudes from the cut stem—Spurge.

Spurge, Dog's Mercury, Rubber Tree, Castor-oil, Sago Palm, Tapioca Plant.



a

b Section

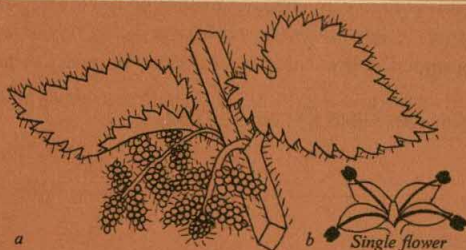
Araceae (Cuckoo Pint)

Flowers grouped at bottom of a stalk or spadix inside a green sheath or spathe (a) in the following order (b):

1. Sterile flowers.
2. Flowers with stamens only.
3. Sterile flowers.
4. Flowers with carpels only.

Fruit a very poisonous berry.

Cuckoo Pint (Lords and Ladies), Arum Lily.



a

b

Urticaceae (Stinging Nettle)

Flowers are in groups of those with carpels only (a) and those with stamens only (b).

Fruit an achene.

Stems square.

Leaves of Stinging Nettle are covered with stinging hairs. Pellitory has no hairs.



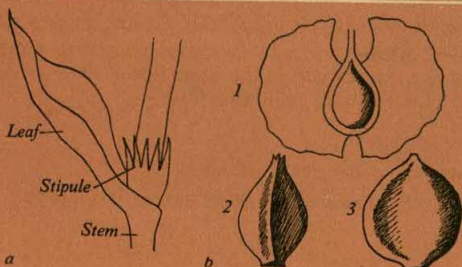
a

b

Chenopodiaceae (Beet)

Two different types:

- (a) Clusters of flowers in axils of leaves, often hairy—Goose-foot, Beet, Spinach, Good-King-Henry.
- (b) Succulent plants with minute leaves—Glasswort.



a

b

Polygonaceae (Dock)

Stipules united into a sheath inside a leaf base (a).

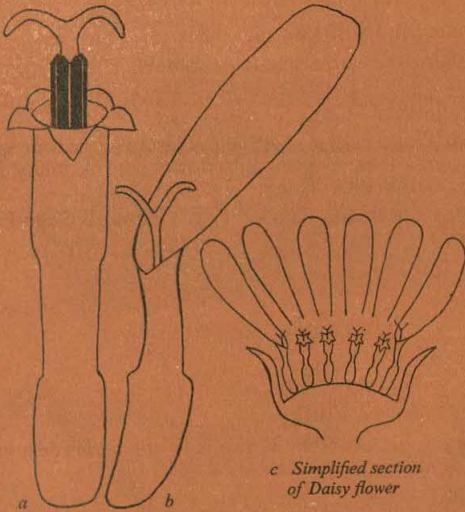
Flowers grouped into close-packed heads, loose spikes, or small clusters in the leaf axils.

Fruit an achene (b)—winged (1), triangular (2), or lens-shaped (3).

Knotgrass, Dock, Sorrel, Buckwheat.

GROUP SIX

Important families not included in the other tables



Compositae (Daisy)

Small flowers grouped in 'heads', each head surrounded by green bracts.

Sepals absent or replaced by hairs, bristles, or scales.

Flowers are:

- (a) Tubular and symmetrical, with stamens and one carpel (disc florets).
- (b) Non-symmetrical, with petals on one side extended (ray florets).

Family divided into three groups:

- (1) With (a) type of floret only—Burdock, Thistle, Cornflower, Groundsel.
- (2) With (b) type of floret only—Chicory, Hawkweed, Lettuce, Dandelion.
- (3) With both types (c), type (b) being outside and having carpels only—Daisy, Marigold, Chrysanthemum, Dahlia, Ragwort, Golden Rod.



Gramineae (Grasses and Cereals)

Stems round with conspicuous joints, often hollow between the joints.

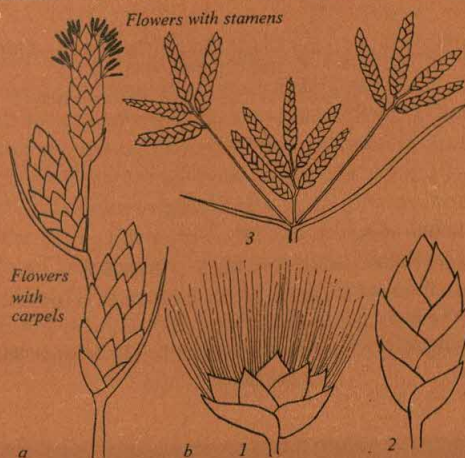
Leaves long and blade-like.

Flowers tiny, with two green scales instead of sepals and petals.

Stamens three; stigma feathery; both hang out of flower (a).

Flowers grouped in branching spikes, either compact or loose (b).

Grasses, Cereals, Sugar Cane.



Cyperaceae (Sedges)

Stems triangular and not hollow.

Leaves grass-like.

Flowers tiny and grouped into 'heads'.

Sepals and petals replaced by scales or bristles.

Family divided into two main groups:

- (a) Stamens and carpels in separate flowers, often separate heads—Sedge.
- (b) Stamens and carpels in the same flower—Cotton Grass (1), Club Rush (2), Galingale (3).

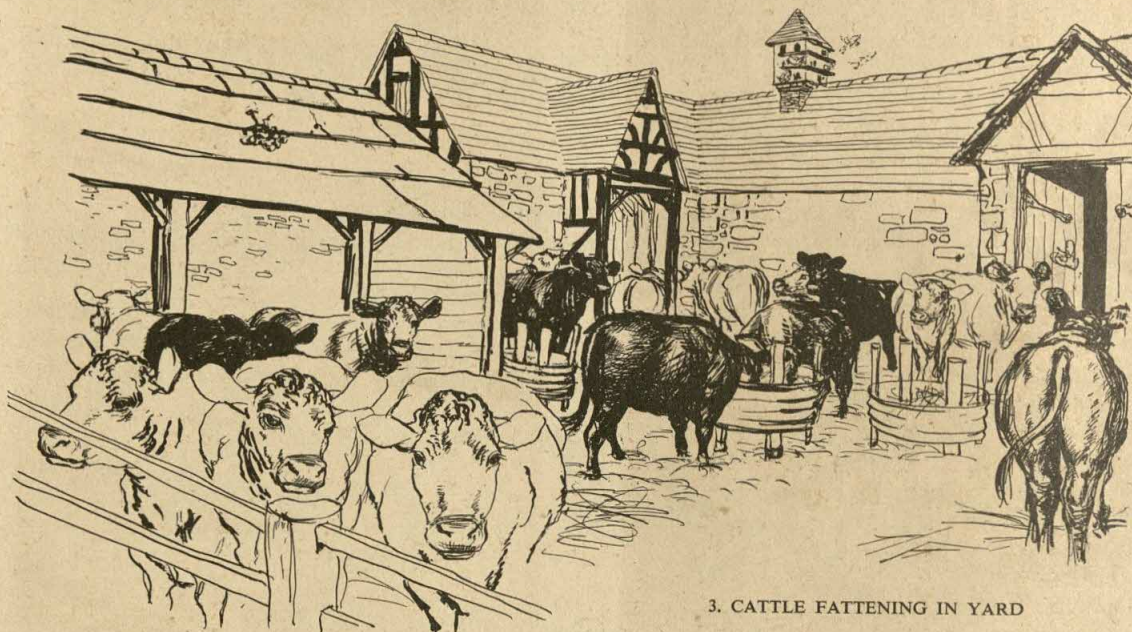
AUTUMN AND WINTER



1. AUTUMN PLOUGHING



2. DRILLING WINTER CORN



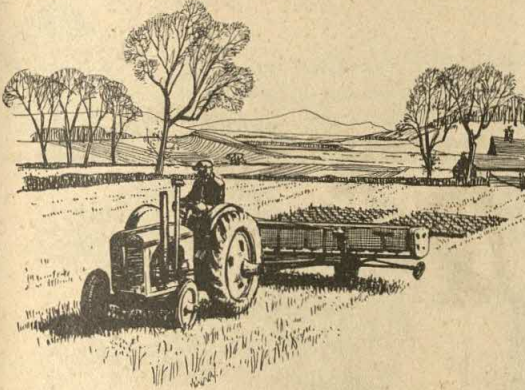
3. CATTLE FATTENING IN YARD



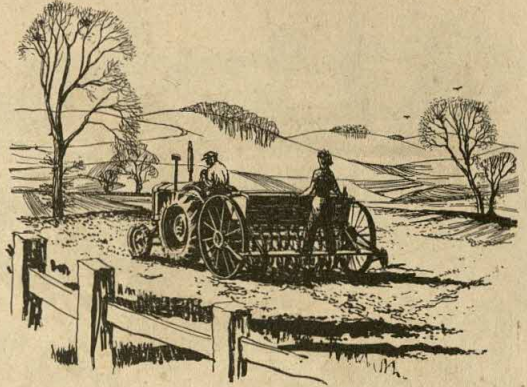
4. HEDGING AND DITCHING

1. Preparation starts in the autumn for many crops that are harvested the following summer. Ploughing is usually the first step—much to the delight of the birds. 2. Winter varieties of corn that need a long time to grow and ripen have to be sown in the autumn, usually in a rather rough seed-bed. 3. In the winter there is usually not much grass, and many cattle are therefore kept in yards and hand-fed on hay, roots, corn, cake, and meal. These are Aberdeen-Angus cattle: black and with no horns. 4. Hedges are cut and laid while the plants are dormant.

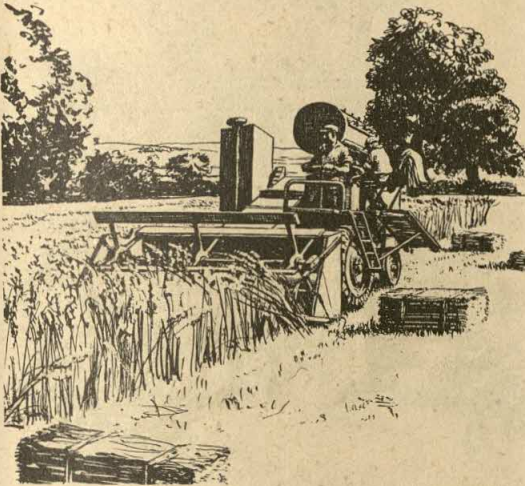
SPRING AND SUMMER



5. TOP-DRESSING AND HARROWING WINTER CORN



6. DRILLING SPRING CORN



8. HARVESTING GRAIN WITH A COMBINE HARVESTER



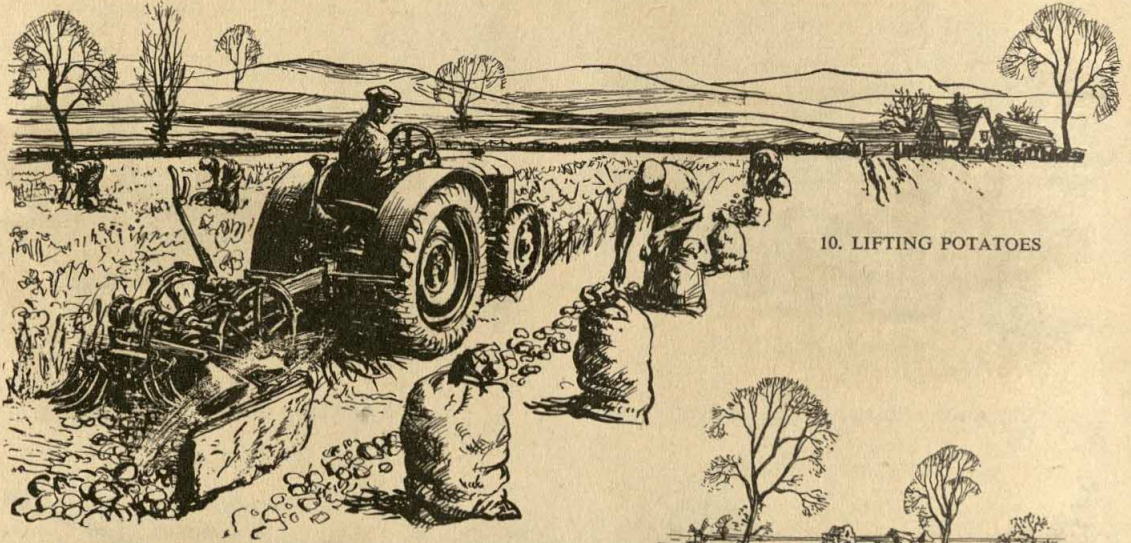
7. BEEF CATTLE GRAZING

5. In the spring winter corn is harrowed, and often manured as well. 6. The quick-growing varieties of corn, which cannot stand the cold and wet of winter, are sown in the spring, in a finer seed-bed than that prepared for winter corn. 7. In summer there should be enough grass to keep the cattle growing, and on rich land the grass may be good enough even to fatten them. 8. Grain for 'combin- ing' must be drier than it need be for harvesting with a binder. 9. Sheaves from a binder have to be stacked, and, if the stack is to stand in the open, it must be thatched.



9. THATCHING A CORN STACK

AUTUMN AND WINTER



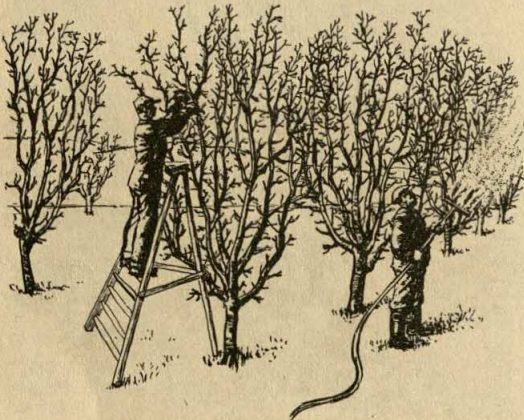
10. LIFTING POTATOES



12. CARTING MANURE



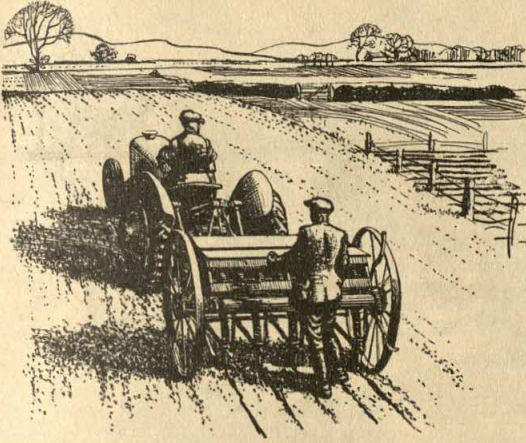
11. TOPPING SUGAR BEET



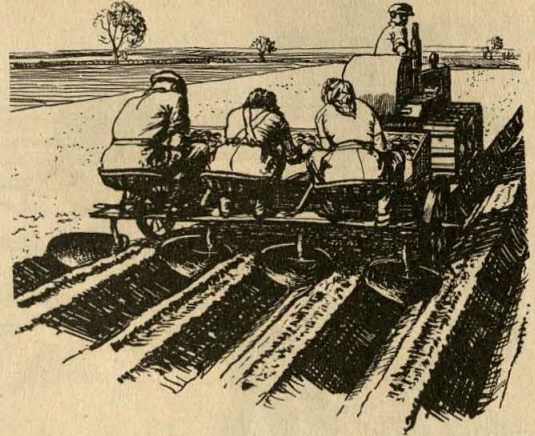
13. WINTER WASHING AND PRUNING FRUIT TREES

10. Harvesting the crops of one year overlaps preparations for the next year's crops. Main-crop potatoes are usually lifted in October–November. 11. Sugar-beet harvest extends from October to January. 12. Farmyard manure is usually ploughed in during the winter and early spring. The evenly spaced heaps are first spread over the ground with a hand-fork. 13. Fruit trees are sprayed to kill insects' eggs, fungi, moss, and other pests; some of the chemicals used would destroy the buds of the tree itself if applied when it is not dormant. Most pruning also takes place before the sap rises in the spring.

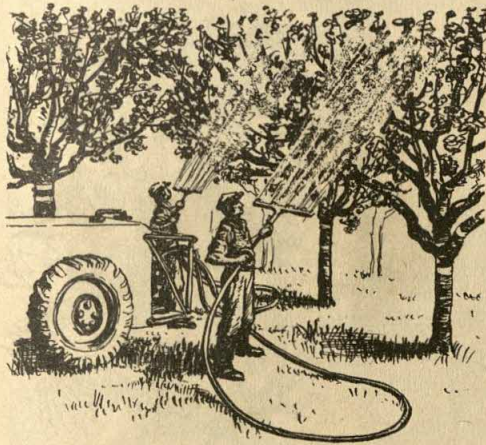
SPRING AND SUMMER



14. DRILLING SUGAR BEET



15. PLANTING POTATOES

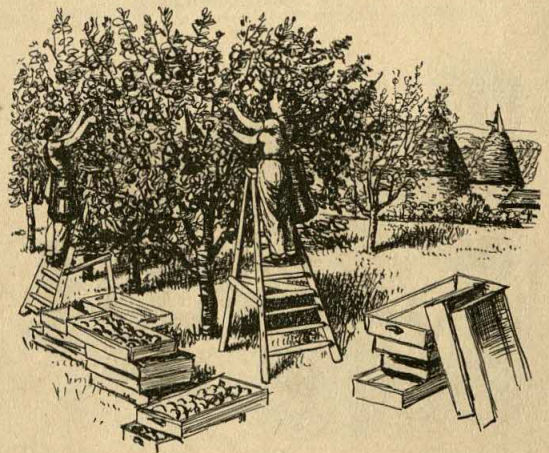


16. SPRAYING FRUIT TREES



17. HOEING AND EARTHING-UP ROOTS

14. Drilling sugar beet is usually an April job, when the land has become dry enough to make it possible to get an even seed-bed. 15. Early varieties of potatoes in early districts are planted in February; but main crops elsewhere are planted in April. 16. When the fruit trees are in leaf, the sprays used and the pests destroyed are different from those of winter. 17. In spring and summer, especially in a rainy season, weeds must be tackled. Root crops in wide rows, and on the ridge, are weeded with hoe and ridging plough. 18. From July to October fruits ripen, according to variety and season.

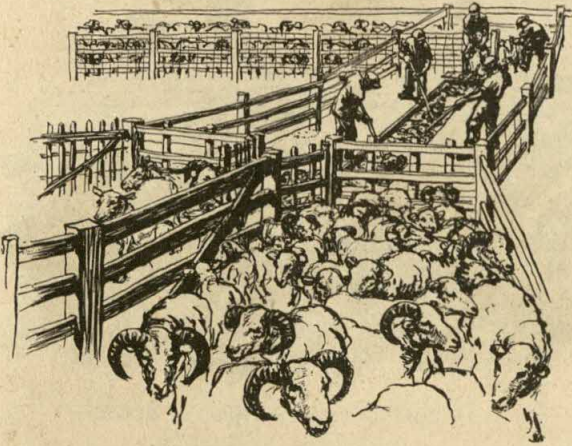


18. PICKING APPLES

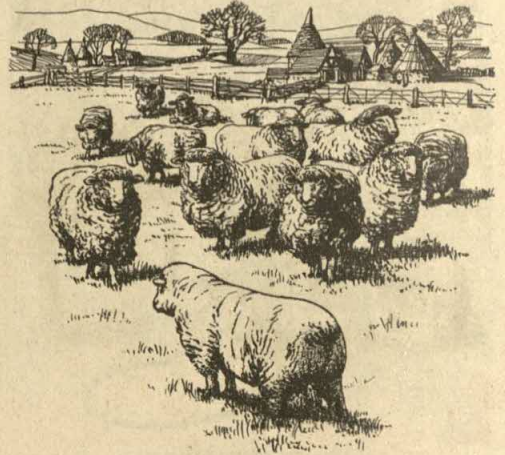
AUTUMN AND WINTER



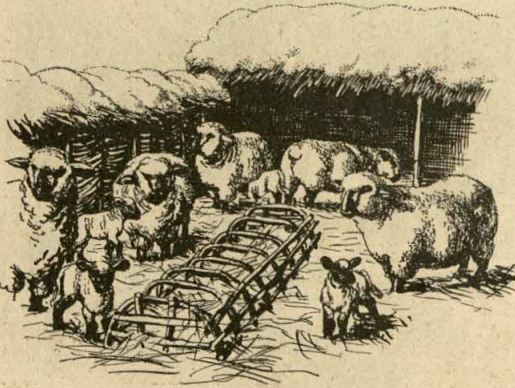
19. SPREADING LIME



20. DIPPING SHEEP



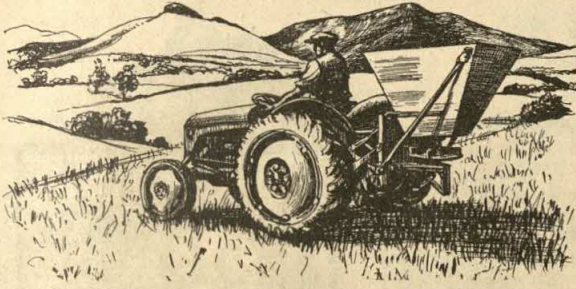
21. RAM TURNED IN WITH EWES



22. LAMBING PEN

19. In winter quick (unslaked) lime is put in heaps on the grass for the rains to slake. It is then spread by hand. On level land other forms of lime may be put on with a distributor. 20. Sheep are dipped at least once a year, in the autumn. 21. Kent ewes are brought together with a Southdown ram. This happens about 5 months before the lambs are wanted. In nearly all breeds the ewes mate most readily in the autumn or late summer. 22. In the south the first lambs may be born about Christmas time on those farms that can provide plenty of winter food for the ewes.

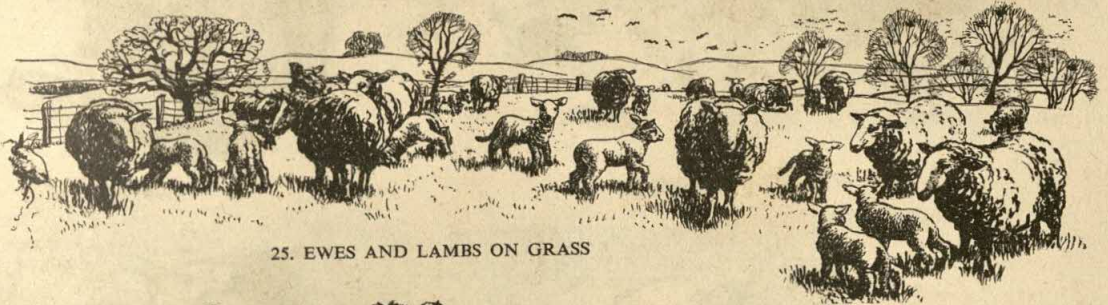
SPRING AND SUMMER



23. TOP-DRESSING GRASS



24. SOWING GRASS SEEDS



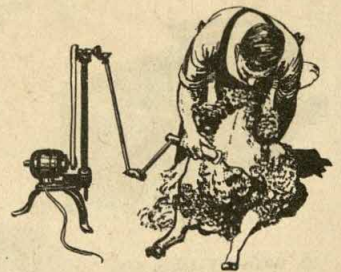
25. EWES AND LAMBS ON GRASS



26. MAKING SILAGE



27. HAYMAKING: SWATH TURNING



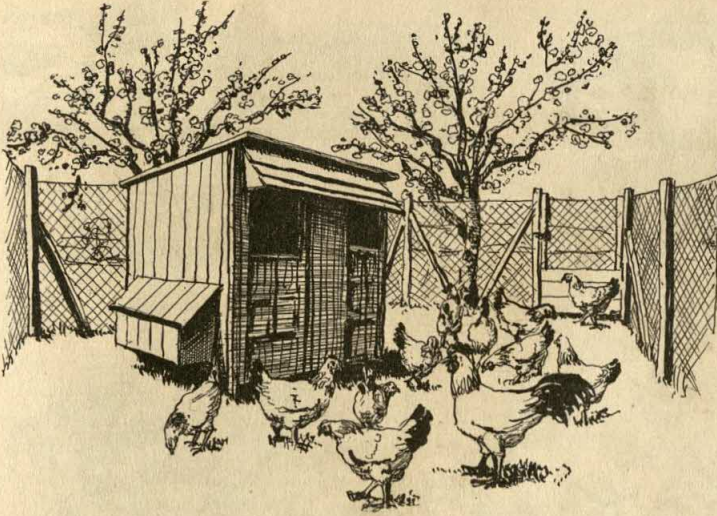
28. SHEEP-SHEARING

23. In early spring, a little nitrogen makes the grass grow more quickly and with more leaf. 24. Grass and clover seeds to form a new ley are sown in spring or late summer. 25. On some farms the lambs are not wanted much before the spring grass comes. 26. Most silage is made in early summer when growth is most rapid and plants are therefore most nourishing. 27. Haymaking starts in late May or early June in the south; later in the north. 28. Shearing in the south starts in early June, and in the north finishes about the end of July. 29. Lamb sales are held all over the country from July onwards.



29. LAMB SALE

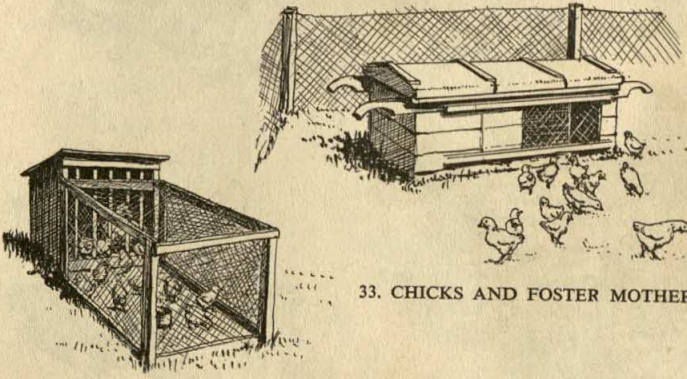
ALL THE YEAR ROUND



30. POULTRY-BREEDING PEN

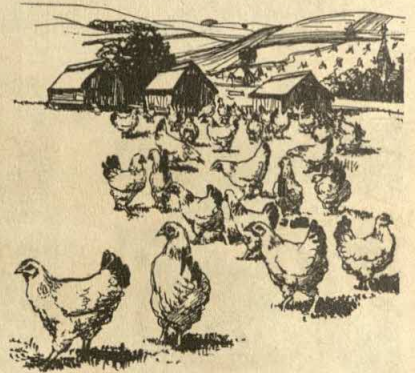


31. INCUBATOR

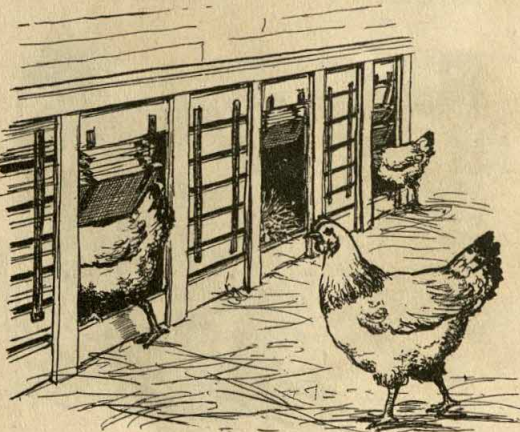


32. BROODY HEN AND CHICKS

33. CHICKS AND FOSTER MOTHER



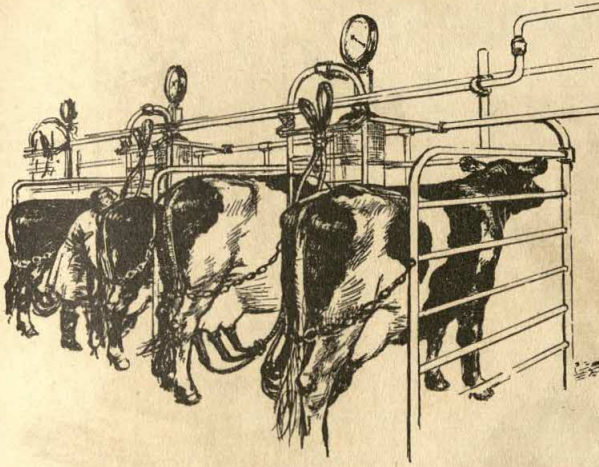
34. PULLETS ON FREE RANGE



35. HENS AND TRAP NESTS

30. A breeding pen of cock and hens put together in September or October gives fertile eggs from November onwards. 31. Hatcheries that use big incubators work most of the year, but are busiest during the months of December to April. 32. Hens most readily become broody in the spring. 33. The rearing of pullets for egg-laying and cockerels for the table continues all the time. 34. Where a laying flock is kept on free range, the birds are in the fields all the year round. 35. A well-managed flock of well-bred birds lays eggs at all seasons, though production is highest in spring and early summer.

ALL THE YEAR ROUND



36. MILKING COWS



37. BUCKET-FEEDING CALVES

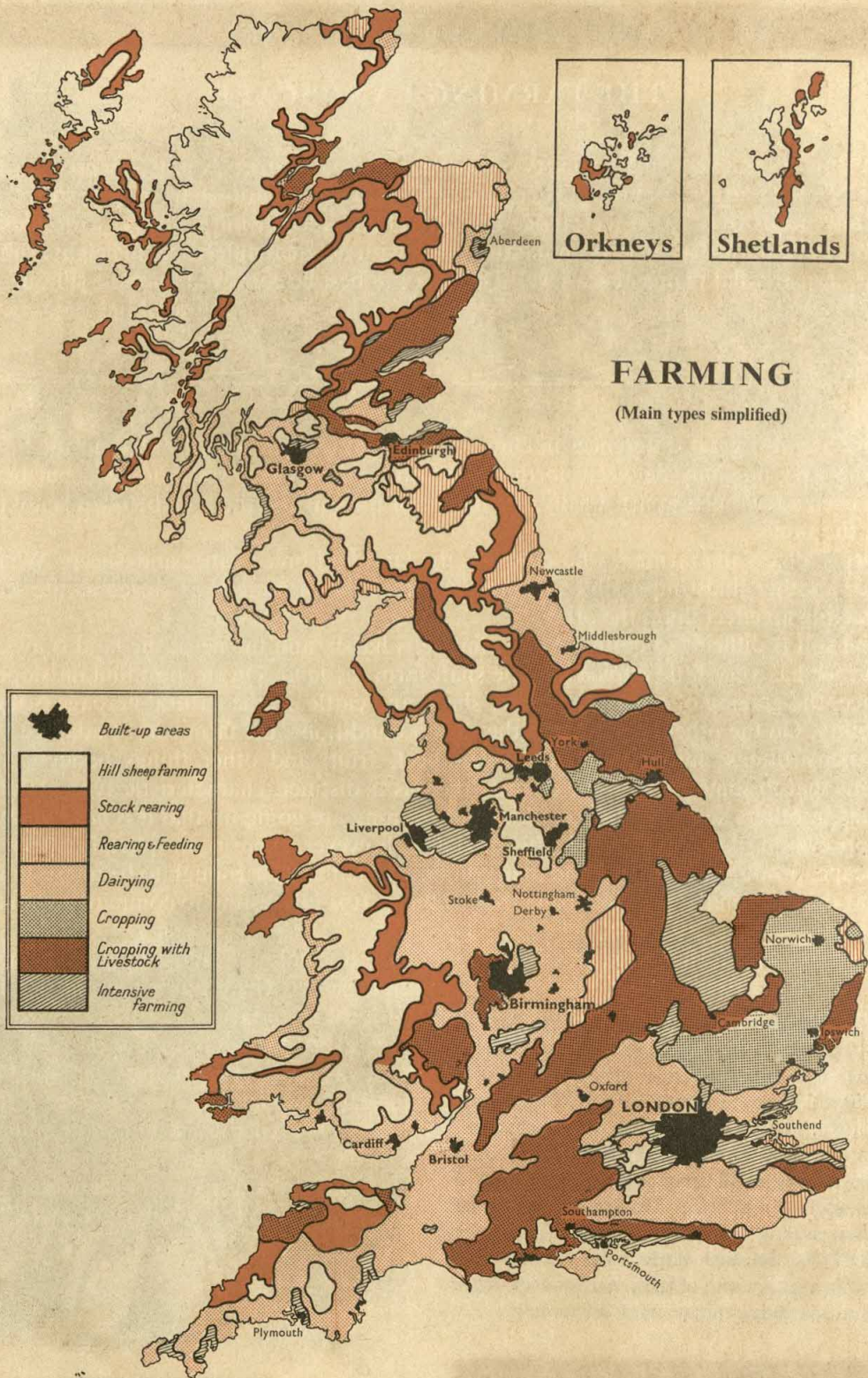


38. FEEDING PIGS

36. In a dairy herd there are cows to be milked all the year round, for as some go dry others come into milk. 37. The constant demand for milk makes it necessary to produce calves at all times of the year. These are reared, in various ways, to become veal, beef, or breeders. 38. Pigs are bred and fattened, in varying number, at all times of the year, in spite of the ups and down in prices. 39. A great deal of the corn that is stacked in the sheaf—that is, not combined—is threshed during the winter after harvest. In every month of the year, however, there is a threshing drum at work somewhere.

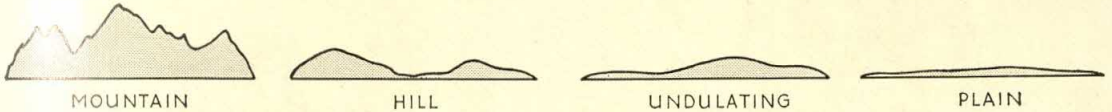


39. THRESHING CORN



THE FARMING LANDSCAPE

GREAT BRITAIN is a very small country compared with many others, yet its scenery is as varied as that of much larger countries. There are mountains with hard, sharp edges, steep slopes, and many peaks over 1,000 feet above the sea. There is lower hill country, with smoother, more rounded outlines. There is undulating land, with no great differences in height; and there are flat or nearly flat plains at sea-level. The idea can best be conveyed by these silhouettes.



There are also great differences in climate. Rainfall, temperatures, wind, and the hours of sunshine vary not only between north and south, and between west and east, but between places even a few miles apart. Lastly, the nature of the soil and the rock below it is not everywhere the same.

All this affects the farmers who cultivate the land and breed cattle and sheep. What one can do, another finds impossible. The result is that the farming is as varied as the scenery, each having an effect upon the other.

If the soil is difficult to cultivate, the climate is harsh, and the lie of the land is awkward, the farmer has very little choice how he shall farm his land. On steep mountain slopes, for instance, the grazing of hardy and active sheep and cattle on the natural herbage is the only possibility. On the other hand, under the easiest conditions, the farm can be adapted to produce many things: milk, corn, vegetables, beef, fruit, and other things besides. Thus it happens that in some parts of the country there is a distinct, characteristic type of farming, whereas in others so many different kinds of farming are going on that it is hard to say what is the prevailing kind. In spite of this difficulty, however, there is an overall pattern in the landscape, produced by nature and man combined, that is clear enough to be interesting. This is what the map on the opposite page tries to show. It is interesting to compare it with a rainfall map.

The rocks that form the earth's surface influence not only the landscape and the farming, but have, in the past, had an effect upon the buildings too. There was a time when all farm-houses, cottages, and farm buildings were built of local materials.

If the rock was suited to building, quarries were opened and stone was used. If there was no stone but suitable material for making bricks was handy, then houses were built largely of brick. Where there were plenty of suitable trees, timber was used, often together with brick or brick and plaster. These differences can still be seen even though houses are no longer always built of local materials.

The photographs on the following pages illustrate parts of this pattern of landscape, farming, and buildings. The examples are taken from those parts of the country where the pattern is most clear.

I. MOUNTAIN COUNTRY



1. SCOTTISH BLACKFACE SHEEP ON THE LOWER SLOPES OF BEN NEVIS, INVERNESS-SHIRE

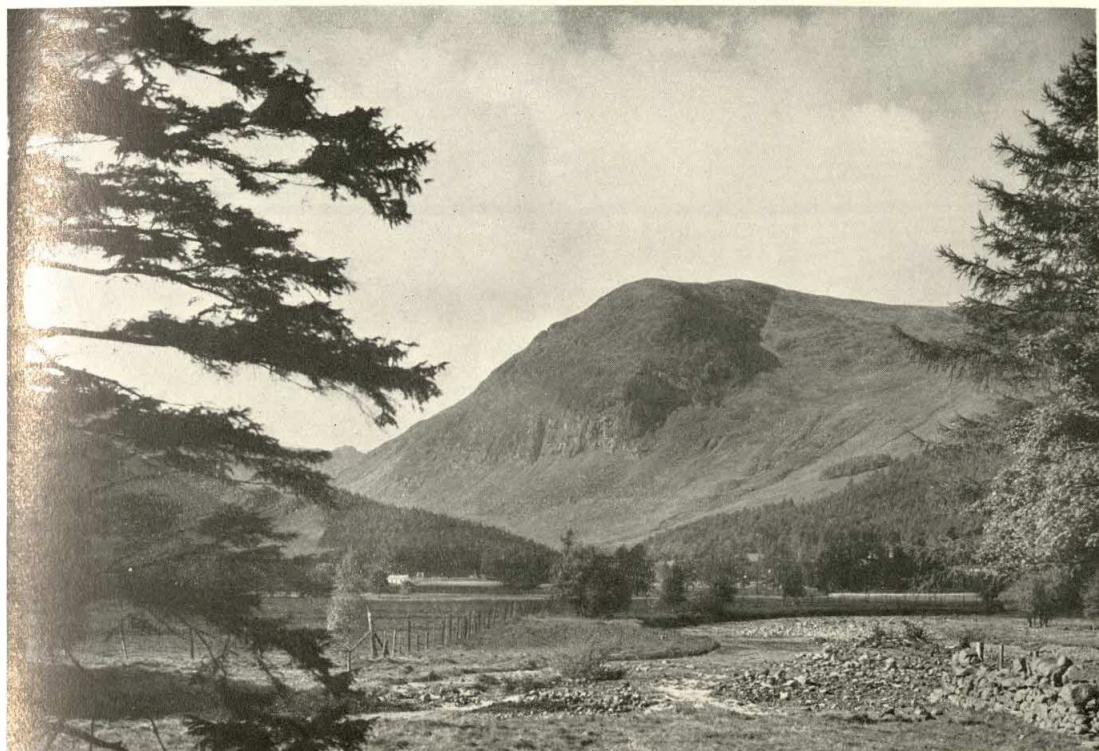


2. COED-Y-BRENIN FOREST, MERIONETH, WALES

High, mountainous country, where the soil on the steep slopes has been eroded (washed thin), is best suited to sheep farming and forests. The sheep, of some hardy breed, far outnumber the cattle, though cattle are important in controlling the growth of the coarse grasses which sheep tend to neglect. The wildest, highest parts are unenclosed, the lower slopes are walled, and where a valley floor is level and well drained a few ploughed fields may be found growing crops that can stand the wet, cool climate of these parts: for instance, oats and turnips.

The sharp outline of the landscape shows the hard nature of the rock, which is used for the dividing walls and for building the farmhouses, farm buildings, and cottages. The surfaced roads keep to the valleys and the easier slopes, and the highest, wildest parts can be reached only on foot or on horseback.

Most of the areas marked on the map on page 80 as 'sheep farming' are country of this nature, though a few are poor lowlands used in other ways—forestry, for instance (see Section VII).



3. A CONTRAST BETWEEN LEVEL VALLEY FLOOR AND STEEP ERODED SLOPES: GLEN DOLL, ANGUS



4. THE LAKE DISTRICT: REPAIRING A DRY STONE WALL



5. A FARM IN THE LAKE DISTRICT: STONE WALLS, SLATE ROOFS

II. HILL COUNTRY



6. THE WELSH FOOT-HILLS NEAR LLANGOLLEN, DENBIGHSHIRE



7. A HILL FARM NEAR CUTCOMBE ON THE BORDERS OF EXMOOR, SOMERSET



8. IN THE YORKSHIRE DALES: STOCK REARING AND MILK PRODUCTION ON THE LOWER SLOPES, SHEEP FARMING HIGHER UP



9. HOEING ROOTS ON A FARM IN THE WEST RIDING, YORKSHIRE



10. A FARMHOUSE NEAR OTLEY IN THE WEST RIDING, YORKSHIRE

'Hill' means country less rugged, less high, with a deeper soil, and with a climate less bleak than on the 'mountain'. The map on page 80 shows much of this hill country as 'stock rearing', where cattle and sheep are reared for the lowland farmers to fatten or milk. There is more ploughland, more kinds of crops are grown, and many of the pastures are leys rather than permanent grass. Dairying

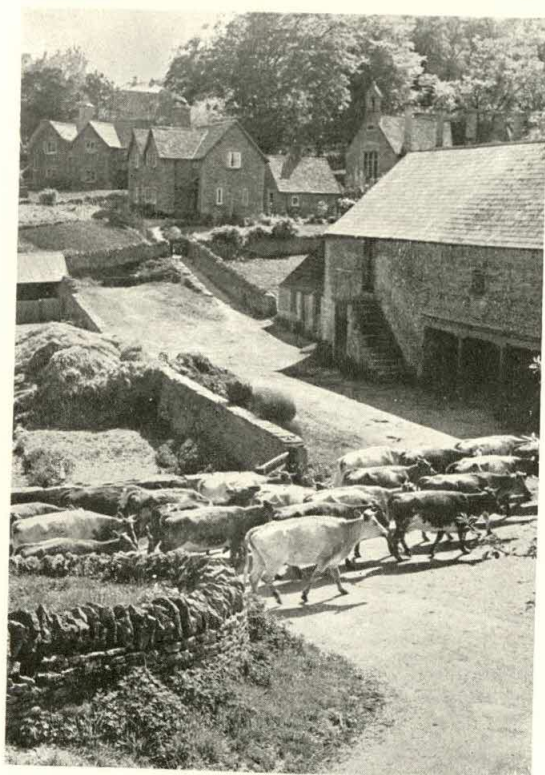
(milk production) on a small scale is, on the better land, often combined with the rearing of stock. Where the hills are the foot-hills of mountains the small, enclosed fields give way to unenclosed land as the height increases.

Stone is never far away, and is much used for building. Where the soil is deep enough to give the plants root-room, hedges usually replace walls.

III. THE DORSET-YORKSHIRE LIMESTONE RIDGE



11. THE COTSWOLD HILLS NEAR WINCHCOMBE, GLOUCESTERSHIRE



12. FARMSTEAD AT COWLEY, NEAR CHELTENHAM, GLOUCESTERSHIRE



13. HARVESTING WHEAT NEAR BURFORD, OXFORDSHIRE



14. FARNDALE, NEAR PICKERING, AT THE FOOT OF THE YORKSHIRE MOORS



15. HOUSES AT COLLYWESTON, NORTHAMPTONSHIRE. COLLYWESTON STONE SLATES ARE FAMOUS

There are limestone rocks elsewhere, but the ridge of Jurassic limestone which runs from Dorset to Lincolnshire and appears again in North Yorkshire deserves special mention. A part of it is called the Cotswold Hills (mainly in Gloucestershire and Oxfordshire), and other parts are the Northamptonshire Heights and the Yorkshire Moors. Most of this country is open and rolling, much of it (except the moors) is under the plough and growing both cash and feeding crops, and it is well populated

with many breeds of cattle and sheep. Stone walls and hedges share the landscape between them.

Though the limestone is not quite continuous, there is a variety of beautiful building stones to be seen in the churches and in the older houses, farmhouses, and cottages. Many of these are roofed with thin slabs of stone—though not as thin as the slates of the west and north country. Thatched roofs are common, for, since much corn is grown, there is plenty of straw. Tiles are not uncommon.

IV. THE CHALK



16. THE BERKSHIRE DOWNS, NOT FAR FROM NEWBURY. THE CHALK AND THE JURASSIC LIMESTONE (SECTION III)
BOTH GIVE A LANDSCAPE OF SMOOTH, GENTLE CURVES



17. THE SOUTH DOWNS, NOT FAR FROM BRIGHTON, SUSSEX. THE FARMYARD WALL IS OF FLINT AND THE
BUILDINGS OF BRICK AND TILE



18. A FARM ON THE YORKSHIRE WOLDS, AT FRIDAYTHORPE, NEAR GREAT DRIFFIELD. BRICKS AND SLATES FOR THE BUILDINGS HAVE BEEN BROUGHT FROM A DISTANCE



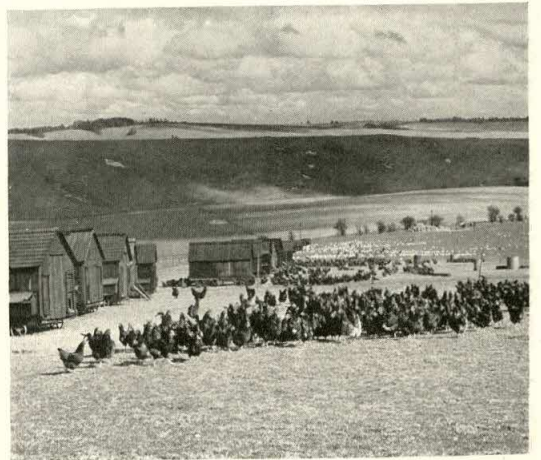
19. COB AND THATCH WALL AT AMESBURY, WILTSHIRE



20. HOUSE BUILT OF LOCAL CHALK AND FLINT, WITH A STRAW-THATCH ROOF

Large areas of land in the south and east of Britain (the Chiltern Hills, parts of Dorset, Hertfordshire, Cambridgeshire, Norfolk, and Suffolk, as well as the districts illustrated) are based on chalk. Here there is much arable land growing corn and other crops, and many cattle, sheep, pigs, and poultry, which help to keep the chalk fertile. Such land suffers less from drought than might be expected, for the chalk, though porous, holds water.

Flints for building come out of the chalk which is itself, in parts, hard enough for building. However, brick, tile, timber, and thatch are the most used materials, and wattle-and-daub and cob (puddled clay and chopped straw, mixed) survive here and there. The bricks and tiles used for the older houses were made in local brickworks in the valleys where suitable materials had accumulated.



21. POULTRY ON A MIXED FARM AT ALDBOURNE, BERKSHIRE

V. THE WELSH MARCHES



22. HEREFORD COWS AND CALVES IN TYPICAL BORDER COUNTRY



23. A FARM NEAR LEDBURY, HEREFORDSHIRE, SHOWING TYPICAL HALF-TIMBER CONSTRUCTION. THE BUILDING WITH POINTED ROOF AND COWL IS AN OAST, INSIDE WHICH HOPS ARE DRIED

The word 'marches' here means 'borders'; so the English counties concerned are mainly Herefordshire, Shropshire, and Cheshire, with Worcestershire on their eastern side. The rocks and resultant landscape are varied, so there are many types of

soil and farming: hops and fruit, dairying, fattening cattle and sheep, and, on the hills, much stock rearing. Herefords and Welsh Blacks are the popular breeds of cattle, though not the only ones. Although much land is under the plough, there is more per-



24. A HEREFORDSHIRE ORCHARD OF MIXED TOP AND BUSH FRUIT



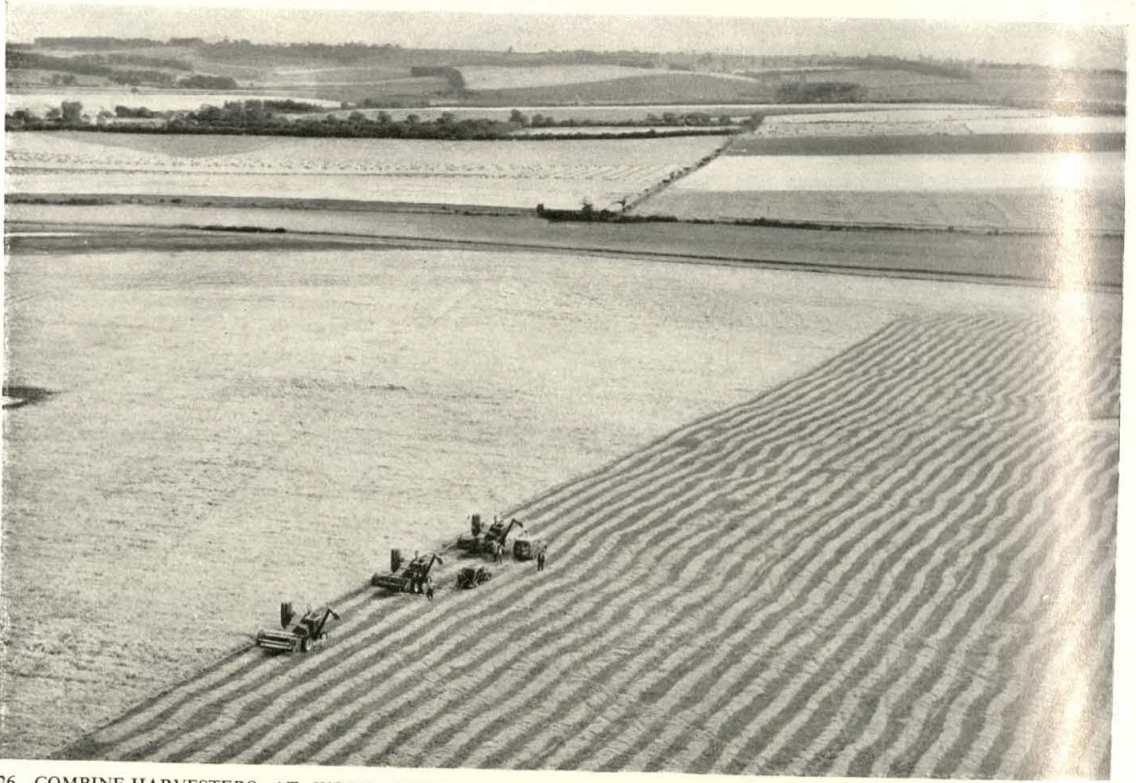
25. A HALF-TIMBERED HOUSE STANDING ON STONE FOOTINGS AND ROOFED WITH STONE TILES, AT PEMBRIDGE IN HEREFORDSHIRE

manent pasture on this wetter side of England than in the drier eastern counties.

Some stone, mainly Old Red Sandstone, is to be found in the older buildings; this is usually mixed with good brick, which itself is often combined

with timber to give the characteristic 'half-timber' or 'black and white' work. A similar mixture of materials is found in the Weald of Kent and Sussex, though there the stone is from the Greensand rock.

VI. THE EAST ANGLIAN PLAIN



26. COMBINE-HARVESTERS AT WORK CUTTING AND THRESHING CORN IN EXCEPTIONALLY LARGE, FLAT FIELDS IN EAST CAMBRIDGESHIRE



27. BOXFORD, NEAR SUDBURY, SUFFOLK



28. TIMBER AND TILE: WEATHER-BOARDED HOUSES AT UPSHIRE IN ESSEX

This is the name given to that part of the country covered, approximately, by Norfolk, Suffolk, Essex, and Cambridgeshire. It is not all flat (see picture 27), and is called 'plain' only because it is much less hilly than most other parts. There are

many kinds of soil in the area, and much arable land growing crops in great variety. The low rainfall makes it very suitable country for the ripening of grain and other seeds, and farmers, consequently, grow corn and crops for seed. Cattle,



29. THE COUNTRYSIDE NEAR BRAINTREE, ESSEX. THE VARIETY OF COLOUR IS LARGELY DUE TO THE VARIETY OF CROPS BEING GROWN: COMPARE THIS WITH PICTURE 6

sheep, and other stock are kept, but in fewer numbers than in many other parts (see on the map the areas marked 'cropping').

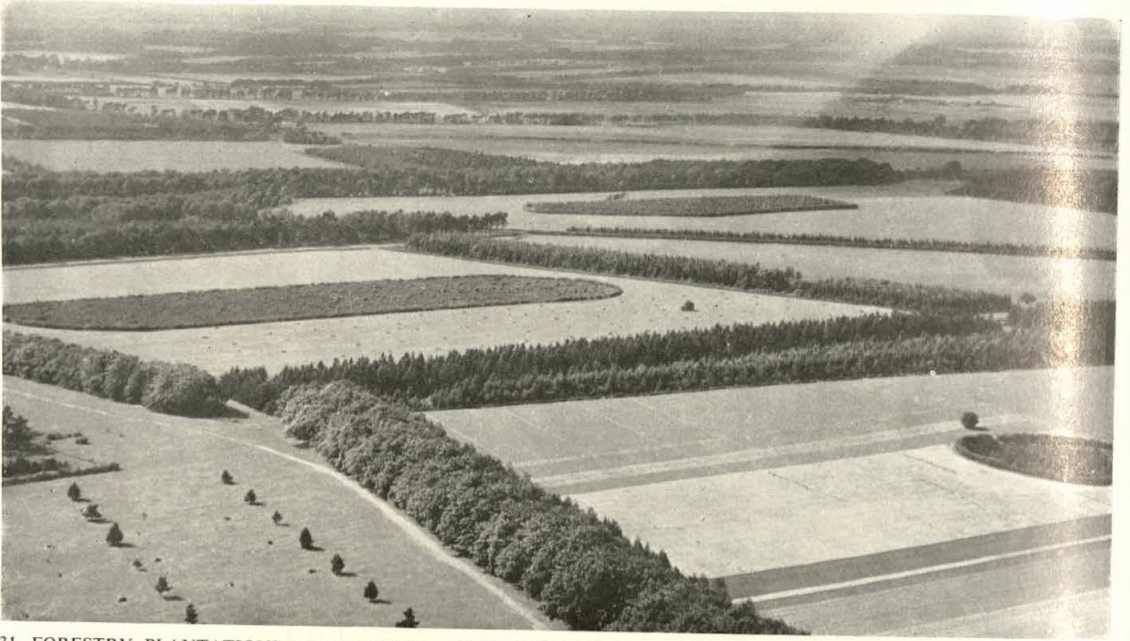
Except for the flints in the chalk in the western side of this area, there is no hard building stone. Therefore, brick and tile, timber, thatch, and, in the older houses, wattle-and-daub, are the most common of the local materials. Much of East Anglia is still well treed. In the past dense forests covered the land—as they did other parts of Britain—but these have long since been felled for firing or building, and the land cleared for farming.

The decoration of plaster walls with moulded plaster, called pargeting, is characteristic of East Anglia; and so is thatching with reeds.

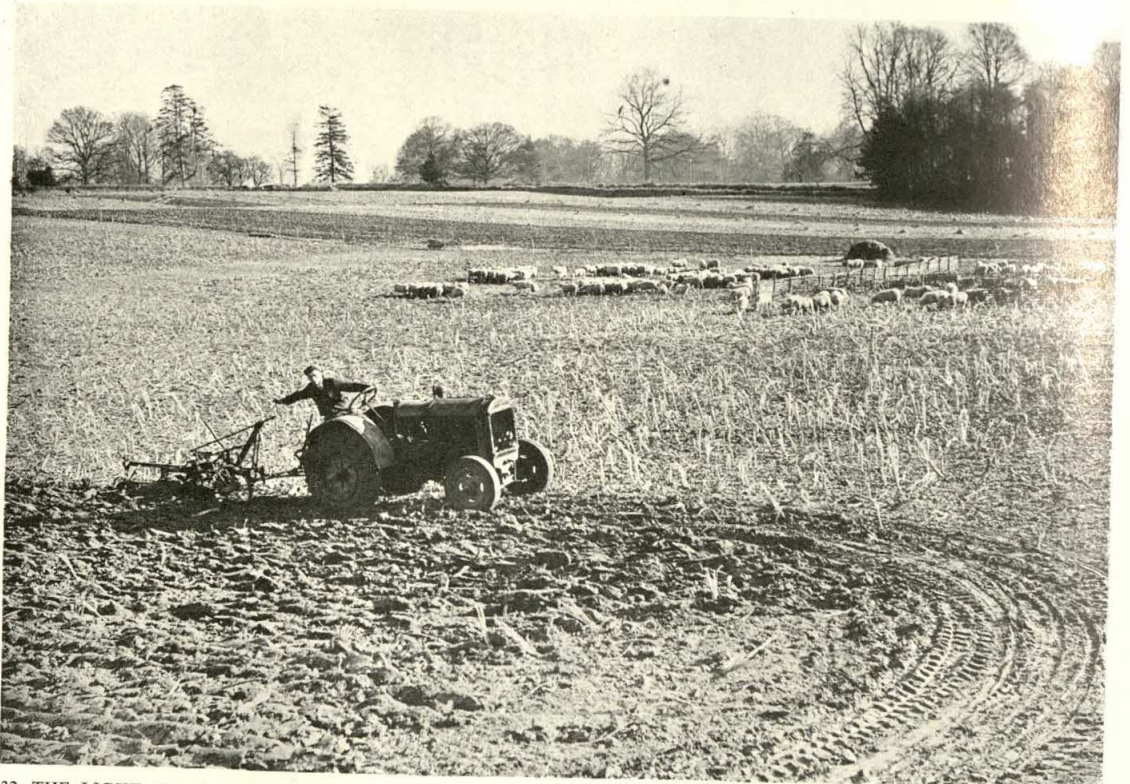


30. PARGETING ON A HOUSE IN SAFFRON WALDEN, ESSEX

VII. SANDY LAND



31. FORESTRY PLANTATIONS AT THETFORD, IN BRECKLAND, ON THE BORDERS OF NORFOLK AND SUFFOLK. THE TREES PROVIDE WINDBREAKS AS WELL AS TIMBER



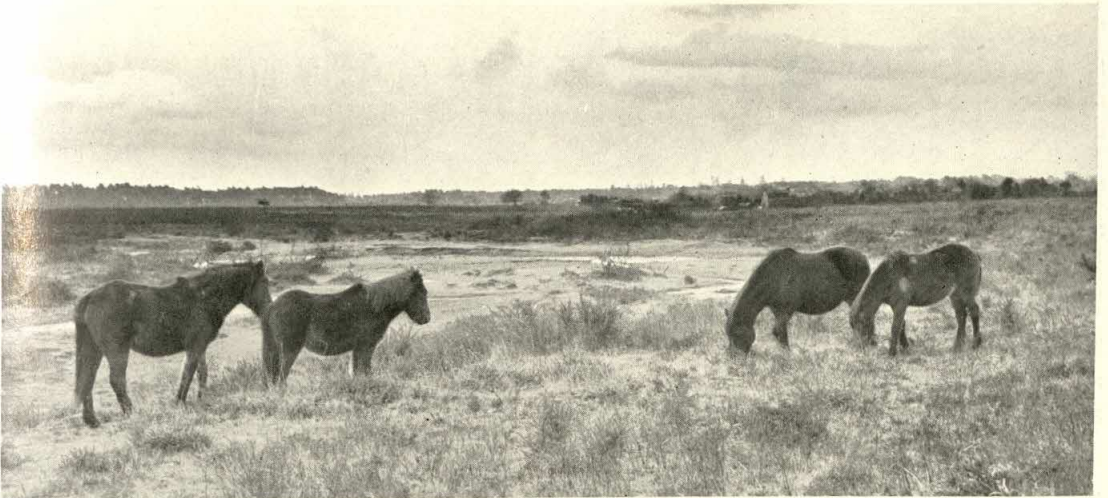
32. THE LIGHT (SANDY) LAND IS IMPROVED BY DIRECT MANURING, BY THE PLOUGHING-IN OF CROPS, AND BY FOLDING STOCK ON IT



33. THE EDGE OF CULBIN FOREST ON THE MORAYSHIRE COAST. HERE THE SANDY SOIL BLOWS AWAY WHEREVER THERE ARE NO PLANTS TO HOLD IT IN PLACE



34. FLINT-WALLED HOUSES WITH PANTILES (CURVED) AT ICKLINGHAM IN WEST SUFFOLK, NOT FAR FROM THE CHALK COUNTRY



35. THE NEW FOREST IN HAMPSHIRE. MUCH OF THIS POOR FARMING LAND IS PLANTED BY THE FORESTRY COMMISSION, AND THE REST USED MAINLY FOR CATTLE AND PONIES

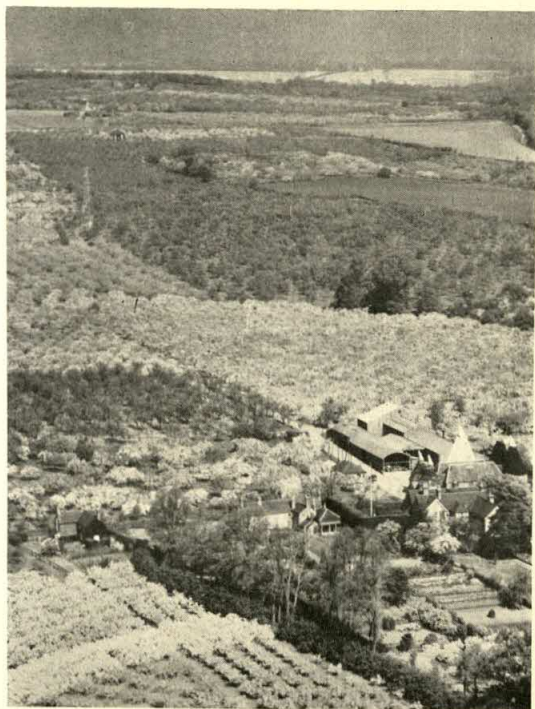
Some very sandy stretches of country produce a typical landscape needing rather special treatment. If the rainfall is low, the land is difficult to farm unless a great deal of humus and manure is put into it. The least fertile parts are better suited to forestry than farming.

With the exception of flint in East Anglia and

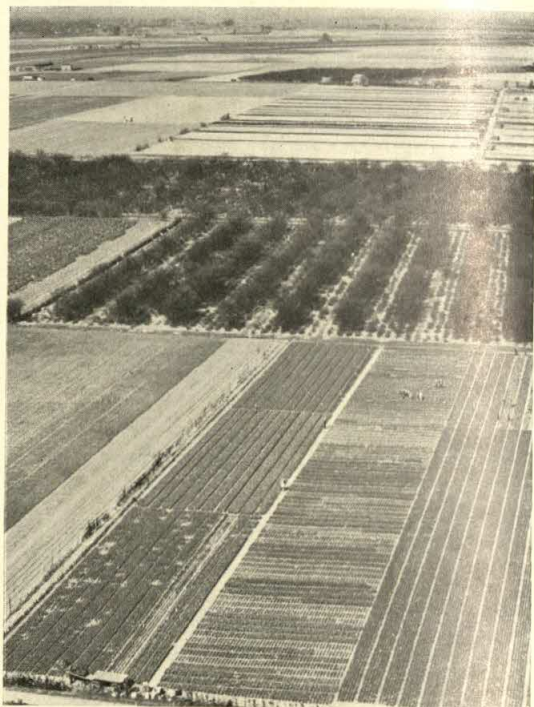
some hard building stone in the north, the local materials are brick, tile, timber, and thatch. In these and other stoneless parts, the stone, when wanted for churches, had to be brought from afar.

On the map the poorest sand lands are marked 'sheep farming', though the expression 'of low agricultural value' would be more appropriate.

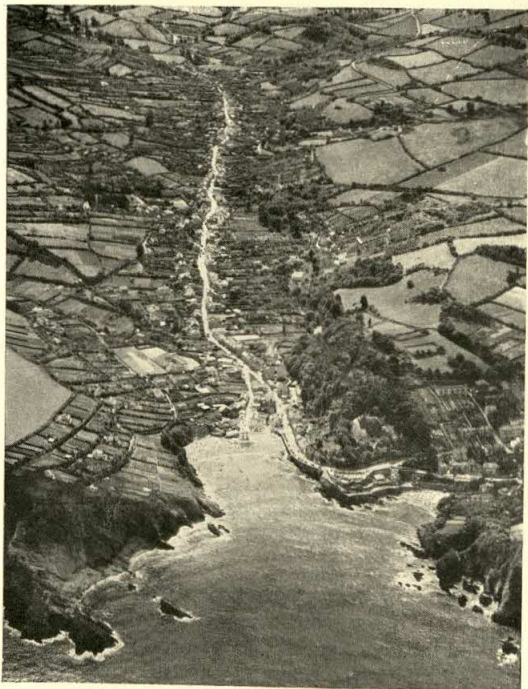
VIII. SPECIALIZED AND INTENSIVE FARMING



36. A FRUIT-GROWING AREA IN NORTH-WEST KENT.
THE OASTS SHOW THAT HOPS ARE ALSO GROWN



37. VEGETABLES AND FRUIT NEAR WISBECH, IN THE
FENS



38. A POCKET OF INTENSIVE VEGETABLE GROWING AT
COMBE MARTIN ON THE NORTH DEVON COAST



39. GLASSHOUSES NEAR CHESHUNT IN THE LEA
VALLEY, HERTFORDSHIRE

Scattered throughout Great Britain there are small areas in which the farmers specialize in the intensive production of certain crops. For example, in parts of Kent, Essex, and Worcestershire there are a great many orchards; and most of the hops are grown in Kent, Herefordshire, Worcestershire, and Sussex. In parts of Cornwall, Lancashire, East Lothian, Yorkshire, Lincolnshire, Bedfordshire, Worcestershire, Essex, and Kent, and in the Fens and the lower Thames Valley—to mention only a few—many of the farmers concentrate on the growing of vegetables in the open; and acres of glasshouses are to be found in the Lea Valley north of London, and between the South Downs and the sea. Suitable soil and climate are the main reasons for these concentrations, though a handy market and specialized, traditional knowledge and skill are also responsible. The map on p. 80 is too small to show all these areas, but it does show some.

These specialized ways of farming are not related in any way to the landscape or local building styles—except, perhaps, for the oasts characteristic of hop-growing districts (see pictures 23 and 36). Local building materials depend upon the presence or absence of suitable stone, so the buildings follow in style those of the larger areas around these pockets of specialization.

Specialized farming is also usually intensive, in the sense that each acre brings a high return of produce and money. As well as crops, poultry and pigs are sometimes farmed intensively, thousands of birds and hundreds of pigs being kept on quite small areas of land.

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SUMMARIES OF THE MAIN COUNTRIES OF THE WORLD

THE following tables give some of the most important facts about those countries of the world which were independent political units in January 1956. Some of these facts, particularly population figures, change continually; therefore the dates when the latest reliable census was taken are in most cases put in brackets after the figures. The main activities and exports of a country also tend to change, especially when it is in the course of being developed or of becoming industrialized. A new discovery of great mineral wealth, for example, such as the finding of oil in Venezuela or in parts of Arabia, will greatly change a country's economy.

One of the values of very simplified and brief notes of this sort is in comparing one set of facts with another. For example, these tables give not only the total population of a country but also the number of people approximately per square mile, i.e. the density of the population. From these we can see that though Belgium and Australia have not very different total populations, in Belgium there are about 736 people per square mile, whereas in Australia there are only about 3. Not only that, but Australia has a number of large towns, some of them with well over a million inhabitants; so to produce an average density of only 3, large parts of the country must carry much less than this. We then may notice that Canada, a potentially very rich country, also with two cities of over a million inhabitants, has a density of only about 4 to the square mile, and that most of the South American countries have densities of less than 20. On the other hand, most European countries are more thickly populated. It is interesting to see whether any of the other facts in these tables suggest any reasons for this. We see at once that large areas of Australia are arid or even desert and could support only very few people, and that the northern regions of Canada are within the Arctic Circle. We see that to a great extent the peoples of the New World depend on occupations such as stock-breeding, wheat farming, or lumbering, which lead to a thin spreading of the population, whereas in Belgium, a small country with rich coal deposits, the majority of the people are engaged in manufactures or mining, occupations which lead to great concentrations of people in a small area. We can also appreciate that the countries of the New World are still comparatively young and that their wealth, especially of minerals, is still not fully exploited.

There is nothing surprising in finding that Mongolia and Libya have densities of only 2 people to the square mile; but when we see that Switzerland, almost entirely a mountainous country, carries nearly 300 people to the square mile, we must look for a reason. The summary tells us that various manufactures are a main source of wealth to the Swiss, and so we might deduce that the mountain streams and lakes are used to provide Swiss factories with cheap hydro-electric power.

The comparatively high density of population in some countries of Asia, East Pakistan for example, is explained when we see that there are rich river valleys and deltas in these countries, intensively cultivated, and when we remember that the very different standard of life in most eastern countries makes it possible for many more people to get a livelihood from a given area of land.

Although a study of the facts given in these little summaries may suggest interesting conclusions, the summaries only become fully useful when the cross-references to the articles in the various volumes are followed up. When figures here and in the articles are found to differ, it must be remembered that the figures here were taken from the most recent reliable statistics which were not always available when the main volumes were prepared.

AFGHANISTAN

250,000 sq. m. (Vol. III, p. 7; map, p. 229)

People: c. 12 millions (1947); density per sq. m. 48.

Afghans conquered successively by Persians, Greeks, Mongols, and Turks (Vol. I, p. 2).

Language: Pashto, Persian (Vol. IV, p. 312).

Religion: Islam, mainly of Sunni sect.

Administration

Government: constitutional monarchy. British control of foreign relations ended 1919.

Principal cities: Kabul (cap.), pop. c. 206,000.
Kandahar, pop. c. 77,000.

Distance from London to Kabul: 3,500 miles.

Natural features

A landlocked, mountainous, desert country, 1 per cent. of land cultivated. Central highlands surrounded by river valleys and irrigated plains. Hindu Kush mountains (highest peak 25,263 ft.). Dry, continental climate.

Main activities

Nomadic sheep-raising; agriculture (cotton, spice crops, fruit); weaving and carpet-making.

Exports: wool and lamb-skins, dried fruit, some cotton.

ALBANIA

10,629 sq. m. (Vol. III, p. 7; map, p. 160)

People: c. 1,250,000 (1953); density per sq. m. 130.

Illyrian people with Turkish elements (Vol. I, p. 5).

Language: Albanian—a branch of Indo-European.

Religion: Islam 69 per cent.; Orthodox Eastern Church 21 per cent.

Administration

Government: republic since 1946.

Principal cities: Tirana (cap.), pop. 30,806.
Shkodër (Scutari); pop. 29,209.

Distance from London to Tirana: 1,188 miles.

Natural features

Rugged, mountainous country with flat, marshy sea-coast; 13 per cent. of land cultivated. Dinaric Alps in north.

Climate: Mediterranean, with continental extremes in mountains.

Main activities

90 per cent. of people engaged in livestock rearing or agriculture (dairy-farming, tobacco, olives).

Exports: petroleum and minerals.

ARABIA

See SA'UDI ARABIA; YEMEN.

ARGENTINA

1,069,689 sq. m. (Vol. III, p. 18; map, p. 415)

People: c. 18,379,000 (1953); density per sq. m. 18.

Mainly European in origin (from Spain and Italy).

A small number of American Indians (Vol. I, p. 34).

Language: Spanish.

Religion: Roman Catholic.

Administration

Government: republic. First constitution set up, 1853.

Principal cities: Buenos Aires (cap.), pop. 3,000,371 (1947) (Vol. III, p. 61).

Rosario, pop. 761,000.

Cordoba, pop. 351,644.

Tucuman, pop. 325,165.

Distance from London to Buenos Aires: 6,920 miles.

Natural features

Large stretches of pampas, undulating grasslands.

52 per cent. of land arable or pasture. Andes Mts. stretch along whole western frontier (Aconcagua Mt. 22,830 ft.). Patagonia, dry barren plateau, in south;

Chaco, hot swampy plain, in north.

Rivers: Plate Estuary, Uruguay, Parana.

Main activities

Agriculture; sheep- and cattle-raising.

Industry: meat-packing, flour-milling, oil- and sugar-refining.

Exports: cereals, meat, wool, dairy products, linseed oil.

AUSTRALIA

2,974,581 sq. m. (Vol. III, p. 39)

People: 8,986,873 (1954), + c. 46,600 (1947); density per sq. m. 3.

European 99 per cent.; c. 46,600 aborigines (Vol. I, pp. 48, 46).

Language: English.

Religion: Church of England 40 per cent.; Nonconformist 28 per cent.; Roman Catholic 20 per cent.

Administration

Government: constitutional monarchy; member of British Commonwealth of Nations; federation of seven states (1901).

Principal cities: Canberra (cap.), pop. c. 28,277 (Vol. III, p. 72).

Sydney (N.S. Wales), pop. c. 1,863,217 (Vol. III, p. 428).

Melbourne (Victoria), pop. c. 1,524,062 (Vol. III, p. 282).

Other state capitals: Brisbane (Queensland) (Vol. III, p. 58); Adelaide (S. Australia) (Vol. III, p. 2); Perth (W. Australia) (Vol. III, p. 337); Hobart (Tasmania) (Vol. III, p. 217); Darwin (N. Territory).

Distance from London to Canberra: 10,530 miles.

Natural features

Except on east and south-east and south-west corner, the country is mainly arid lowland or rocky plateau, with large desert areas.

Mountain range on east (Mt. Kosciusko 7,328 ft.).

Chief river, the Murray.

One-third of Australia lies within the tropics.

Its separation from other land surfaces of the world has resulted in unique flora and fauna.

Main activities

Sheep-farming the chief industry; also cattle-rearing, fruit- and wheat-growing; mining of gold and other minerals, iron, copper, silver, zinc.

Exports: wool, dairy products, meat, fruit, wheat.

AUSTRIA

32,369 sq. m. (Vol. III, p. 42; map, p. 160)

People: 6,933,905 (1951); density per sq. m. 214.

Originally Germanic stock (Vol. I, p. 50).

Language: German.

Religion: Roman Catholic (c. 90 per cent.).

Administration

Part of Hapsburg Empire till 1918; republic since 1919.

Principal cities: Vienna (cap.), pop. 1,616,125 (1951) (Vol. III, p. 465).

Graz, pop. 226,453.

Linz, pop. 184,685.

Salzburg, pop. 102,927.

Distance from London to Vienna: 768 miles.

Natural features

A landlocked Central European country; about two-thirds over 3,000 ft. above sea-level (Austrian Alps) and over one-third forested.

River Danube (Vol. III, p. 120).

Main activities

Agriculture and dairy farming; heavy industries and other manufactures.

Main exports: iron and other ores, dairy produce, timber, wines.

BELGIUM

11,755 sq. m. (Vol. III, p. 49; map, p. 415)

People: 8,840,704 (1951); density per sq. m. 736.

Flemish 53 per cent. (in north); Walloons 42 per cent. (in south) (Vol. I, p. 67).

Languages: Flemish, French.

Religion: mainly Roman Catholic.

Administration

Government: constitutional monarchy; independence established in 1831. Member of Benelux.

Principal cities: Brussels (cap.), pop. 972,629 (1953) (Vol. III, p. 60).

Antwerp, pop. 257,634.

Distance from London to Brussels: 205 miles.

Natural features

Part of Great European Plain; Flanders low and sandy; Ardennes wooded uplands. 58 per cent. of land arable or pasture.

Rivers: Scheldt, Meuse.

Climate: mild winters, cool summers.

Main activities

Metallurgical industries, mining, textile manufactures (employing 49 per cent. of population); agriculture.

Exports: manufactured goods, coal.

BOLIVIA

404,388 sq. m. (Vol. III, p. 55; map, p. 415)

People: c. 3,090,000 (1953); density per sq. m. 7.

American Indians 55 per cent.; Mestizos (mixed European and American Indian) 32 per cent.; European origin (mainly Spanish) 13 per cent. (Vol. I, pp. 73-76).

Languages: Spanish; Indian languages.

Religion: Roman Catholic (state religion).

Administration

Government: republic (created by Bolivar in 1825).

Principal cities: Sucre (cap.), pop. 40,000.

La Paz (seat of govt.), pop. 321,000.

Distance from London to La Paz: 6,350 miles.

Natural features

A landlocked tropical country bounded by Andes Mts. in west. Central grasslands (*llanos*); fertile valleys (*yungas*); low, hot, marshy forest land (*selvas*) covering 44 per cent. of the country. Andes Mountains, peaks of over 21,000 ft.

Lake Titicaca, c. 13,000 ft. above sea-level.

Main activities

Subsistence agriculture and livestock raising occupies 70 per cent. of population; tin-mining.

Exports: tin (75 per cent. of total exports), petroleum, lead, rubber, meat, and hides.

BRAZIL

3,288,050 sq. m. (Vol. III, p. 57; map, p. 415)

People: 52,632,577 (1950) (Vol. I, p. 74); density per sq. m. 16.

European in origin (Portuguese, German, Italian), c. 55 per cent.; Mulattos (of mixed race) c. 20 per cent.; Negroes c. 15 per cent.; Indians c. 10 per cent. (Vol. I, p. 9).

Language: Portuguese, American Indian languages.

Religion: Roman Catholic.

Administration

Government: republic (independence from Portugal won in 1889).

Principal cities: Rio de Janeiro (cap.), pop. 2,303,063 (1950) (Vol. III, p. 371).

São Paulo, pop. 2,017,025.

Distance from London to Rio de Janeiro: 5,740 miles.

Natural features

A land of great rivers. The Amazon (Vol. III, p. 11) and its great tributaries, flowing from the Andes Mts. to the Atlantic, occupying northern Brazil; the Paraguay, Parana, and São Francisco occupy the south and east.

Tropical forest (*selvas*) 46 per cent. of total land area. Grassland (*campos*) on Brazilian plateau (Vol. III, p. 197).

Minas Geraes district rich in iron ore and other minerals.

Arable land 2 per cent. of total, mostly on coastal plain.

Climate tropical—hot and wet in Amazon basin; hot and dry on plateau.

Main activities

Agriculture (chiefly coffee growing), hunting, fishing—67 per cent. of population.

Mining and industry—12 per cent. of population.

Exports: coffee (over half total value), cotton, timber, cocoa, hides.

BULGARIA

42,796 sq. m. (Vol. III, p. 62; map, p. 160)

People: 7,290,000 (1952); density per sq. m. 170.

Bulgars with some Turkish minorities (Vol. I, p. 84).

Language: Bulgarian—a Slavonic language with Cyrillic alphabet.

Religion: Orthodox Eastern Church 85 per cent.; Islam 13 per cent.

Administration

Government: 'People's Republic', established 1946.

Principal cities: Sofia (cap.), pop. *est.* 437,000 (1950) (Vol. III, p. 406).

Plovdiv, pop. *est.* 127,000.

Distance from London to Sofia: 1,270 miles.

Natural features

Rough, mountainous country; 40 per cent. of land cultivated; fertile plains north and south of Rhodope Mts. and in Danube plain. Short sea coast on Black Sea.

Climate: hot summers and long cold winters.

Main activities

Agriculture and stock-rearing, 80 per cent. of population.

Exports: cereals, tobacco, poultry and dairy produce, skins, attar of roses (perfume), some mineral ores.

BURMA

261,789 sq. m. (Vol. III, p. 63; map, p. 229)

People: *est.* 19,000,000 (1947); density per sq. m. 71.

Burmese (Tibeto-Chinese origin); also hill tribes of jungle people, and Indians and Chinese (Vol. I, p. 85).

Language: Burmese (special alphabet).

Religion: Buddhism 85 per cent. (Vol. I, p. 81).

Administration

Government: republic (since 1947).

Principal cities: Rangoon (cap.), pop. *c.* 613,000 (Vol. III, p. 364).

Mandalay, pop. *c.* 163,540 (Vol. III, p. 275).

Distance from London to Rangoon: 5,620 miles.

Natural features

Country of tropical forest, river valleys, swamps, and fertile deltas, enclosed on three sides by mountains. Fertile land 20 per cent.

Rivers: Irrawaddy (Vol. III, p. 237), navigable some 900 miles. Chindwin, Sittang, Salween; all run north to south.

Climate: tropical monsoon.

Main activities

Agriculture, 70 per cent. rice growing, employing 80 per cent. of people; fishing; oil-mining.

Exports: rice, timber (teak), petroleum.

CAMBODIA

c. 70,000 sq. m. (Vol. III, p. 232: INDO-CHINA; map, p. 87)

People: *c.* 4,073,967 (1953) (Vol. I, p. 249).

Mongolian peoples; *c.* 4,500 Europeans (mainly French).

Language: Cambodian (Vol. IV, p. 94).

Religion: mainly Buddhism; *c.* 120,000 Roman Catholics.

Administration

Government: monarchy (independent kingdom 1949).

Principal city: Phnôm-Penh (cap.), pop. *c.* 375,000 (1953).

Natural features

Valuable forest areas; fertile southern lowlands. Mekong River overflows annually, filling Lake Tonle in the western lowland. This slowly dries into many small ponds richly stocked with fish.

Main activities

Rice-growing (on 80 per cent. of cultivated land), fishing, cattle-breeding, silk weaving.

Main exports: pepper, rice, maize, rubber, kapok, and palm sugar.

CANADA

3,610,097 sq. m., excluding lakes, (Vol. III, p. 69)

People: 14,009,429 (1951); density per sq. m. *c.* 4.

About 7 million of British origin; 4 million of French origin; 2½ million other Europeans; *c.* 166,000 Indians and Eskimos. Nearly two-thirds of the population live in the provinces of Ontario and Quebec.

Languages: English (*c.* 65 per cent.); French (*c.* 28 per cent.).

Religion: Roman Catholic 43 per cent.; United Church of Canada 20 per cent.; Anglican 15 per cent.

Administration

Government: constitutional monarchy; member of British Commonwealth of Nations. Federation (1867) now consisting of ten provinces and three districts.

Principal cities: Ottawa (cap.), pop. 202,000 (Vol. III, p. 328).

Montreal (Greater), pop. 1,395,000 (Vol. III, p. 297).

Toronto (Metropol.), pop. 1,117,000.

Distance from London to Ottawa: 3,320 miles.

Natural features

A country of long sea-coast, with fjords and islands, much of it icebound in winter. Forested hills and fertile valleys in east, with fertile lowlands in south-east; coniferous forest, lakes, and prairies in centre and south; Rocky Mountain ranges (Vol. III, p. 380) in west, with rich coastal region; tundra and usually icebound coast in north.

Rivers: St. Lawrence (Vol. III, p. 389), Mackenzie (Vol. III, p. 267), Saskatchewan, Fraser.

Lakes: total area of 468,611 sq. miles. Great Lakes (Vol. III, p. 201), Winnipeg, Great Slave, Great Bear, &c.

Main activities

Farming (mainly wheat); mining (gold, iron, non-ferrous metals); lumbering; fishing.

Manufacturing: metal and timber products; automobiles; textiles.

Main exports: paper and timber products, cereals, metals, farm machinery.

CEYLON

25,332 sq. m. (Vol. III, p. 79; map, p. 229)

People: 8,103,648 (1953); density per sq. m. *c.* 320.

Sinhalese with 12 per cent. Tamils and a small number of Europeans and Euro-Ceylonese (Vol. I, p. 101).

Languages: Tamil, Sinhalese, English.

Religion: Buddhism 60 per cent., Hinduism 18 per cent., and some Christianity.

Administration

Government: constitutional monarchy (member of British Commonwealth of Nations); full self government since 1948.

Principal city: Colombo (cap.), pop. 424,816 (Vol. III, p. 100).

Distance from London to Colombo: 5,430 miles.

Natural features

Island in Indian Ocean. A central core of wooded mountains, surrounded by cultivated slopes and plains, widest in north, and low-lying jungle.

Climate: tropical though mainly healthy; little difference between summer and winter; heavy rainfall.

Main activities

Mainly agricultural; tea, rice, coconut, rubber culture. Some industries developing.

Exports: tea and coconut products, some tobacco and rubber.

CHILE

286,397 sq. m. (Vol. III, p. 85; map, p. 415)

People: c. 6,009,870 (1955); density per sq. m. 21.

Principally Mestizo, mixed European (mainly Spanish) and American Indian (Vol. I, p. 104); American Indian tribes (Vol. I, p. 6).

Language: Spanish, Indian languages.

Religion: Roman Catholic.

Administration

Government: republic (constitution established 1925).

Principal cities: Santiago (cap.), pop. 1,384,283 (1952) (Vol. III, p. 392).

Valparaiso, pop. 218,820.

Distance from London to Valparaiso: 7,270 miles.

Natural features

A long, narrow country bounded in east by Andes Mts. (Vol. III, p. 414), and in north by Atacama desert; fertile central valley supports 90 per cent. of population; forest and *pampas* (grasslands) in south.

Climate extremely varied.

Main activities

Agriculture employs 35 per cent. of population; mining; manufactures.

Exports: mainly minerals (copper, iron ore, nitrates), timber, cereals.

CHINA

c. 3,800,000 sq. m. (Vol. III, p. 86)

People: c. 570,205,940 (1953); density per sq. m. 173.

Mongolian; Mongol-Turk elements (especially in regions of Outer China).

Languages: Chinese Mandarin and many dialects; Mongolian, Sino-Tibetan.

Religion: Confucianism, Taoism, Buddhism, Islam, Christianity—mainly Roman Catholic (Vol. I, p. 112).

Administration

Government: 'People's Republic' (set up 1949), including Inner Mongolia and former Kingdom of Tibet (1951) (see Vol. I, pp. 294, 438).

Principal cities: Peking (cap.), pop. 2,768,149 (1953) (Vol. III, p. 336).

Shanghai, pop. 6,204,417 (1953) (Vol. III, p. 399).

Nanking, pop. c. 1,020,000 (1950) (Vol. III, p. 308).

Canton, pop. c. 1,496,000 (1950) (Vol. III, p. 72).

Distance from London to Peking: 5,050 miles.

Natural features

Country of great physical diversity, cut off from west by high mountain ranges stretching northwards to Gobi Desert. Fertile northern plain and densely populated alluvial river valleys.

Climate very varied, often extreme.

Rivers: Yangtze (Vol. III, p. 492); Yellow River (Vol. III, p. 492); Si-Kiang (Vol. III, p. 404).

Main activities

Agriculture employs c. 80 per cent. of population; mining; oil production.

Exports: animals and animal products, cotton, tungsten and other ores, tea.

COLOMBIA

439,829 sq. m. (Vol. III, p. 99; map, p. 415)

People: c. 12,381,160 (1954); density per sq. m. 27.

Principally Mestizo; European (mainly Spanish), American Indian, and Negro (Vol. I, p. 128).

Languages: Spanish, Indian languages.

Religion: Roman Catholic.

Administration

Government: republic (constitution formed 1886).

Principal cities: Bogotá (cap.), pop. 648,324 (1951).

Cartagena, pop. 128,877 (1951).

Distance from London to Bogotá: 5,220 miles.

Natural features

High plateau of temperate climate separated from Pacific and Caribbean coasts by Andes ranges. Tropical jungle to south and grasslands (*llanos*) to east. About 2 per cent. of land cultivated.

Main activities

Agriculture (mainly on coffee plantations); mining.

Exports: coffee (82 per cent. of total), petroleum, platinum, minerals, timber.

COSTA RICA

19,695 sq. m. (Vol. III, p. 78)

People: c. 1,000,000 (1955); density per sq. m. 41.

Mainly of European (Spanish) origin. West Indian (c. 15,000), American Indian (c. 12,000) (Vol. I, p. 100).

Language: Spanish.

Religion: Roman Catholic (state religion).

Administration

Government: republic (independent state since 1821). Constitution revised 1949.

Principal city: San José (cap.), pop. 118,287 (1952).

Distance from London to San José: 5,410 miles.

Natural features

Central American state extending across isthmus between Pacific and Caribbean Sea. Central highland ridge runs north-west to south-east between coastal lowlands. Swamp, and tropical forests, to east; grassland (*savannah*), to west.

Main activities

Agriculture almost exclusively.

Exports: coffee, cocoa, bananas.

CUBA

44,206 sq. m. (Vol. III, p. 484: WEST INDIES)

People: c. 5,832,277 (1953); density per sq. m. 134.

Mulatto 75 per cent., Negro 24 per cent., European (mainly Spanish, 1 per cent.), Indian.

Languages: Spanish, English (Vol. I, p. 488).

Religion: mainly Roman Catholic.

Administration

Government: republic (declared in 1902).

Principal city: Havana (cap.), pop. c. 783,162 (1953).

Distance from London to Havana 4,710 miles.

Natural features

Largest of the West Indian Islands, mainly good agricultural land (60 per cent.), narrow coastal marshes.

Cool, tropical climate.

Main activities

Agriculture, employing 41 per cent. of population; mining; small textile industry.

Exports: sugar and molasses (89 per cent. of total), tobacco, ores, pineapples, bananas, timber.

CZECHOSLOVAKIA

49,355 sq. m. (Vol. III, p. 119; map, p. 160)

People: c. 12,536,000 (1950); density per sq. m. 253.

Slav: Czechs, Slovaks (Vol. I, p. 135).

Languages: Czech, Slovak.

Religion: Roman Catholic (75 per cent.), Protestant (8 per cent.), Czechoslovak Church (9 per cent.).

Administration

Government: 'People's Republic.' Independent country formed by union of Bohemia, Moravia, Silesia, and Slovakia, in 1918. Present government set up 1948.

Principal cities: Prague (cap.), pop. 922,000 (1948) (Vol. III, p. 350).

Brno, pop. 273,000 (1948).

Bratislava, pop. 184,000 (1948).

Pilsen, pop. 121,000 (1948).

Distance from London to Prague: 645 miles.

Natural features

Landlocked country in central Europe. Fertile plains and river valleys: agricultural land 50 per cent. of total. Large areas of forest; Carpathian Mts. (Vol. III, p. 74) to east.

Main activities

Agriculture 35 per cent.; mining 35 per cent.; glass making; brewing; and various manufactures.

Exports: coal, timber, glass, textiles, boots and shoes, iron and steel, beer, sugar.

DENMARK

16,609 sq. m. (Vol. III, p. 124; map, p. 160)

People: c. 4,424,100 (1955); density per sq. m. 258.

Scandinavian (Vol. I, p. 137).

Language: Danish, some German. English in use commercially.

Religion: 75 per cent. Lutheran Protestant (state Church).

Administration

Government: constitutional monarchy since 1849; a kingdom for many centuries.

Principal city: Copenhagen (cap.), pop. 947,901 (1950) (Vol. III, p. 112).

Distance from London to Copenhagen: 593 miles.

Natural features

Flat, low-lying peninsula in north-western Europe, together with two large and many small islands. Broken coastlines on North Sea (west) and Baltic Sea (east). 73 per cent. of land cultivated.

Climate: mild and wet.

Main activities

Agriculture (23 per cent. of population); food industry; various manufactures.

Exports: dairy produce, bacon, meat, fish, seeds.

DOMINICAN REPUBLIC

19,128 sq. m. (Vol. III, p. 484: WEST INDIES)

People: c. 2,121,083 (1950); density per sq. m. 111.

Mainly mixed race of European (Spanish), African, and Indian origins (Vol. I, p. 487).

Language: Spanish.

Religion: Roman Catholic.

Administration

Government: republic (proclaimed 1844).

Principal city: Ciudad Trujillo (cap.), pop. 181,553 (1950).

Distance from London to Ciudad Trujillo: 4,380 miles.

Natural features

Eastern portion of West Indian island of Hispaniola. Fertile tropical lowlands. Temperate climate in higher altitudes. The country has been subject to destructive earthquakes and hurricanes.

Main activities

Agriculture; sugar cultivation; gold, iron, and bauxite mining.

Exports: sugar, cocoa, coffee, and tobacco.

ECUADOR

c. 106,178 sq. m. (Vol. III, p. 147; map, p. 415)

People: 3,147,283 (1952); density per sq. m. 29.

Mestizos 41 per cent., Indians 39 per cent., European (mainly of Spanish descent) 10 per cent. (Vol. I, p. 154).

Languages: Spanish, Quechua (Indian) language.

Religion: Roman Catholic (not recognized by state).

Administration

Government: republic (established 1830). New constitution formed 1946.

Principal city: Quito (cap.), pop. 209,982 (1950).

Distance from London to Quito: 5,780 miles.

Natural features

Andes Mt. ranges running down centre of the country enclose high, cool valleys supporting most of the population. To the west tropical plains and swampy Pacific coastline. To the east tropical forests (Amazon Basin—Vol. III, p. 11) covering 54 per cent. of total.

Main activities

Subsistence and plantation farming; forestry; mining. Exports: cocoa, coffee, bananas, rice, balsa wood.

EGYPT

c. 386,198 sq. m. (Vol. III, p. 149; map, p. 5)

People: 18,966,767 (1954); density per sq. m. 49.

Egyptians of Hamito-Semitic race (Fellahin), Bedouins (Vol. I, pp. 161, 166); Nubians (mixed Arab and Negro origin).

Language: Arabic (Vol. IV, p. 30).

Religion: Islam 90 per cent.; Christian 8 per cent.

Administration

Government: republic proclaimed 1953. Member of Arab League.

Principal cities: Cairo (cap.), pop. 2,090,654 (1947) (Vol. III, p. 65).

Alexandria, pop. 919,024 (1947).

Distance from London to Cairo: 2,150 miles.

Natural features

Mainly flat, desert country with some oases and fertile, densely populated land irrigated by River Nile (Vol. III, p. 316). About 4 per cent of land is cultivated. Suez canal (Vol. IV, p. 440) in north-east connects Mediterranean with Red Sea.

Climate: hot and dry.

Main activities

Agriculture (62 per cent.); fishing; cigarette, and other manufactures.

Exports: cotton, tobacco, rice, sugar.

EIRE

See IRELAND.

ETHIOPIA

398,350 sq. m. (Vol. III, p. 1: ABYSSINIA)

People: c. 11 millions (1953); density per sq. m. 28.

Amharas (c. 2 millions) and others of mixed Hamitic and Semitic origin (Vol. I, p. 1); Somali and Nilotic tribes in south.

Language: Amharic, English, French; many tribal languages.

Religion: mainly Christian (Coptic Church, Vol. I, p. 130); Islam.

Administration

Government: monarchy—Hailé Selassie I crowned Emperor in 1930. Eritrea came under Ethiopian Crown in 1952.

Principal city: Addis Ababa (cap.), pop. c. 350,000.

Distance from London to Addis Ababa: 3,650 miles.

Natural features

The Abyssinian plateau consists of barren mountains and rift valleys, some very fertile. Forests in south-west; coastal deserts in east.

Climate: great extremes; two clearly defined rainy seasons in spring and autumn.

Main activities

Pastoral and agricultural farming—methods still mostly primitive. Exploitation of mineral wealth is beginning.

Exports: mainly hides and skins, coffee, grains, and oil seeds.

FINLAND

130,127 sq. m. (Vol. III, p. 165; map, p. 160)

People: 4,231,280 (1950); density per sq. m. 33.

Scandinavian: Finns, Swedes, Lapps (Vol. I, p. 177).

Languages: Finnish (91 per cent.), Swedish (8 per cent.).

Religion: Lutheran Protestant (State religion) 95 per cent.; Greek Orthodox Church 2 per cent.

Administration

Government: republic (independence established in 1917).

Principal city: Helsinki (cap.), pop. 396,343 (1954).

Distance from London to Helsinki: 1,145 miles.

Natural features

A country of many lakes (9 per cent. of total area) and great forests (70 per cent.) lying between Sweden and Russia. Rocky indented coastline with many islands. 9 per cent. of land is cultivated.

Climate: sombre; long, cold winters.

Main activities

Forestry; agriculture (together occupy 60 per cent. of population).

Manufacture of paper, furniture, cellulose.

Exports: timber, paper.

FRANCE

213,100 sq. m. (Vol. III, p. 173)

People: c. 42,999,000 (1954); density per sq. m. 200.

French: Celtic, Roman, Frankish, and Danish origins (Vol. I, p. 184).

Language: French; Basque, Breton, Provençal used locally.

Religion: Mainly Roman Catholic (no state religion); Protestant and Jewish minorities.

Administration

Government: parliamentary republic, first formed 1792 (Vol. X, p. 167) during French Revolution.

Principal cities: Paris (cap.), pop. 2,850,189 (Vol. III, p. 334).

Marseilles, pop. 661,492 (Vol. III, p. 275).

Lyons, pop. 471,270.

Distance from London to Paris: 215 miles.

Natural features

Mainly low-lying country in north and west. Pyrenees (Vol. III, p. 354) form boundary with Spain in south-west; Vosges, Jura Mountains, and French Alps in the south-east.

Climate: temperate; Mediterranean in south.

Rivers: Loire, Rhone, Seine, Garonne.

Main activities

Agriculture (farming, fishing, wine-growing) 36 per cent., mining and industry 28 per cent.

Main exports: wine, silk, textiles, iron ore, steel, manufactured goods.

GERMANY

(WEST) 96,700 sq. m. (Vol. III, p. 184; map p. 186)

(EAST) 41,380 sq. m.

People: (West) *est.* 49,278,000 (1953) (Vol. I, p. 189); density per sq. m. 526.

(East) 17,313,734 (1946); density per sq. m. 445.

Germans—Teutonic descent.

Languages: German; some Frisian (north-west), and Wendish (east) (Vol. IV, pp. 169, 421).

Religion: (West) Protestant 51 per cent., Roman Catholic 45 per cent.

(East) Protestant 82 per cent., Roman Catholic 12 per cent.

Administration

Government: West Germany, Federal Republic.
East Germany, 'German Democratic Republic'.

Independent German States formed into German Empire 1871.

Principal cities: Bonn (cap. West), pop. 134,600 (1953).

Berlin (West), pop. 2,200,912 (1954) (Vol. III, p. 51).

Berlin (cap. East), pop. *c.* 1,200,000 (1946) (Vol. III, p. 51).

Hamburg (West), pop. 1,722,800 (1953) (Vol. III, p. 211).

Munich (West), pop. 906,500 (1953) (Vol. III, p. 307).

Leipzig (East), pop. 607,655 (1946).

Distance from London to Berlin: 590 miles.

Natural features

Country of large, mainly navigable rivers such as Rhine (Vol. III, p. 368), Danube (Vol. III, p. 120), Elbe, and Weser.

Mountainous, forested country in centre and south west. Wide northern plain, infertile except for southern edge.

Climate: temperate in west, more extreme eastward.

Main activities

Mining and manufactures, especially in west; forestry; agriculture.

Main exports: machinery, chemicals, wine, timber, manufactured goods.

GREECE

51,168 sq. m. (Vol. III, p. 204; map p. 160)

People: 7,632,801 (1951); density per sq. m. 149.

Greeks; Turkish minority (Vol. I, p. 210).

Language: Modern Greek (Vol. IV, p. 177); Turkish in west Thrace.

Religion: Greek Orthodox (state religion) 96 per cent.

Administration

Government: constitutional monarchy. Constitution drawn up 1952 (independence from Turkey first declared 1821).

Principal city: Athens (cap.), pop. including port of Piraeus, 1,368,142 (1951) (Vol. III, p. 33).

Distance from London to Athens: 1,505 miles.

Natural features

Mountainous country with long jagged coastline and a great many islands including the Ionian, Aegean, Dodecanese (Vol. III, p. 132), and Crete (Vol. III, p. 116.) Only one-fifth of total area can be cultivated.

Climate: Mediterranean in south; becoming more extreme northwards.

Main activities

Agriculture (60 per cent. of population); fishing.

Main exports: currants and raisins, olive oil, tobacco, wine, sponges.

GUATEMALA

42,042 sq. m. (Vol. III, p. 78)

People: *c.* 3,400,000 (1954) (Vol. I, p. 100: Central Americans); density per sq. m. 66.

American Indians 63 per cent., mixed Indian and Spanish (*Ladinos*), some Europeans.

Language: Spanish, Indian languages.

Religion: Roman Catholic.

Administration

Government: republic (established 1839). Independence gained from Spain 1821.

Principal city: Guatemala (cap.), pop. 293,998 (1950).

Distance from London to Guatemala City: 5,500 miles.

Natural features

Central American state; crossed by high mountain chain, containing several volcanic summits. Frequent earthquakes. Narrow, fertile Pacific slopes are densely populated; Atlantic slopes mainly forested. Climate hot and malarious in lowlands.

Main activities

Agriculture.

Exports: coffee, bananas, cotton, chicle gum, citronella and lemon grass oils, mahogany.

HAITI

c. 10,714 sq. m. (Vol. III, p. 484: WEST INDIES)

People: *c.* 3,111,973 (1951); density per sq. m. 291.

Negroes; mulatto Haitians of French descent (Vol. I, p. 487).

Language: Creole French 80 per cent.; French (official language).

Religion: predominantly Roman Catholic.

Administration

Government: republic (independence gained 1804).

Principal city: Port-au-Prince (cap.), pop. 424,168 (1950).

Distance from London to Port-au-Prince: 4,520 miles.

Natural features

Western part of the West Indian Island of Hispaniola.

Mountainous country; one-third of land is cultivated.

Cool tropical climate with little difference between summer and winter.

Main activities

Agriculture—coffee and rice growing; distilling.

Exports: coffee, sisal, bananas, sugar and rum, cocoa.

HOLLAND (The Netherlands)

13,514 sq. m. (Vol. III, p. 218; map, p. 160)

People: 10,679,563 (1955); density per sq. m. 802.

Dutch, Germanic people (Vol. I, p. 146).

Language: Dutch, a Germanic language; Frisian in islands and small areas in west.

Religion: Roman Catholic 38 per cent.; Dutch Reformed Church (Protestant) 37 per cent.

Administration

Government: constitutional monarchy, established 1815. Belgium separated from Holland 1831.

Principal cities: Amsterdam (cap.), pop. 858,702 (1954) (Vol. III, p. 12).

Rotterdam, pop. 704,646.

The Hague (seat of government), pop. 590,755 (Vol. III, p. 210).

Distance from London to Amsterdam: 220 miles.

Natural features

Part of Great European Plain. 25 per cent. land is *polder* (reclaimed agricultural land) below sea-level; 4,700 miles of canal or navigable river; 67 per cent. of land arable or pasture.

Climate: temperate, with heavy fogs and strong winds.

Main activities

Mining and manufacture employ 25 per cent. of population; dairy farming; market gardening and bulb growing.

Main exports: dairy produce, coal and oil, bulbs.

HONDURAS

59,161 sq. m. (Vol. III, p. 78: CENTRAL AMERICA)

People: est. 1,564,000 (1953); density per sq. m. 26.

Mixed Spanish and Indian (Mestizos); American Indians; some Negroes (Vol. I, p. 100).

Languages: Spanish; American Indian languages.

Religion: Roman Catholic.

Administration

Government: republic (independence established 1838).

Principal city: Tegucigalpa (cap.), pop. 99,948 (1950).

Distance from London to Tegucigalpa: 5,370 miles.

Natural features

Central American state; largely mountainous, with hot, wet lowlands to the east and south-west, and mahogany forests, especially in north-east.

Main activities

Agriculture and cattle-breeding; lumbering; some mining of gold, silver, and lead.

Exports: bananas, coconuts, coffee, rice, timber, and meat and hides.

HUNGARY

35,912 sq. m. (Vol. III, p. 220; map, p. 160)

People: c. 9,800,000 (1955); density per sq. m. 265.

Principally Magyars with 5.1 per cent. Germans, and small minorities of Slovaks, Croats, Gipsies, Rumanians, and Serbs (Vol. I, p. 233).

Language: Hungarian (Uralian family) (Vol. IV, p. 147).

Religion: Roman Catholic 66 per cent.; Protestant 27 per cent.

Administration

Government: 'People's Republic' since 1946. Independent state formed in 1918.

Principal city: Budapest (cap.), pop. c. 1,600,000 (Vol. III, p. 61).

Distance from London to Budapest: 910 miles.

Natural features

A landlocked country depending on river Danube (Vol. III, p. 120) for access to the sea. Great Hungarian Plain; Bakony forest in north-west; Lake Balaton, 60 per cent. of land cultivated.

Main activities

Agriculture and livestock raising; manufactures are developing.

Main exports: grain, animals and animal products, cotton fabrics, some coal and oil.

ICELAND

39,758 sq. m. (Vol. III, p. 225; map, p. 346)

People: 146,540 (1951); density per sq. m. 4.

Icelandic (Vol. IV, p. 395).

Language: Icelandic, some Danish, English used commercially.

Religion: Evangelical Lutheran 97 per cent. (State Church).

Administration

Government: republic (full independence gained 1944).

Principal city: Reykjavík (cap.), pop. 60,024 (1953).

Distance from London to Reykjavík: 1,170 miles.

Natural features

Large volcanic island in North Atlantic Ocean, close to Arctic Circle. Mostly deserts and glaciers with many active volcanoes.

Less than 25 per cent. of land habitable.

Climate: relatively mild, and wet in south.

Main activities

Fishing; sheep farming ($\frac{1}{2}$ per cent. of land cultivated).

Exports: fish, fish oils, mutton, wool, ponies.

INDIA (Indian Republic)

1,269,840 sq. m. (Vol. III, p. 226; map, p. 229)

People: c. 380,000,000 (1955).

Many religious, social, and racial groups (Vol. I, pp. 242, 244, 247).

Languages: Indo-European in north, Dravidian in south. Hindi and English are official languages; 13 others are recognized (Vol. IV, p. 199).

Religions: Hindu (Vol. I, p. 224), the principal religion, Moslem (Vol. I, p. 259), Christian (Vol. I, p. 119), Sikh (Vol. I, p. 440), Jain (Vol. I, p. 266), Parsee (Vol. I, p. 352).

Administration

Government: republic, established 1950. Member of British Commonwealth of Nations (Vol. X, p. 204).

Principal cities: Delhi (cap.), pop. 1,191,104 (Vol. III, p. 123).

Bombay, pop. 2,839,270 (Vol. III, p. 56).

Calcutta, pop. 2,548,677 (Vol. III, p. 65).

Madras, pop. 1,416,056.

Distance from London to Delhi 4,080 miles.

Natural features

Sub-continent forming huge peninsula in the Indian Ocean, with Arabian Sea on west, Bay of Bengal on east, and separated from Central Asia by the long wall of the Himalayas. Great Indus and Ganges plain (Vol. III, p. 179) very fertile. Central plateau, the Deccan, drops steeply to sea on west (Western Ghats). Narrow coastal plain on west well watered and forested. Eastern coastal plain wider and drier. Climate, monsoon (Vol. III, p. 295).

Main activities

Largely a nation of farmers, the chief crops being cereals, rice, wheat, cotton, oilseeds, sugar-cane, and tobacco. Main industry textiles (cotton and jute); other important industries sugar, cement, and iron. Most of the people not dependent on farming are shopkeepers or workers in small-scale industries.

INDO-CHINA

See CAMBODIA; LAOS; VIETNAM.

INDONESIA

735,865 sq. m. (Vol. III, p. 143: EAST INDIES)

People: c. 80,000,000 (1955); density per sq. m. 110.

Probably of mixed Indian and Mongoloid ancestry: Javanese, Balinese, and other tribes (Vol. I, p. 250); some Dutch and Eurasians.

Languages: Malay (the most universally used); many other local languages (Vol. IV, p. 201).

Religion: mainly Islam; c. 3 million Christians and c. 2 million Hindus and Buddhists.

Administration

Government: republic (independence gained 1949). Principal city: Djakarta (cap.), pop. c. 2,500,000 (1953). Distance from London to Djakarta: 7,310 miles.

Natural features

Indonesian peninsula: 4 large islands—Java, Sumatra, Borneo, and Celebes; fifteen smaller islands; and innumerable small ones, some mere volcanic rock. Mainly forested mountains, swampy jungle, and mangrove and coral coasts.

Tropical vegetation and animal life. Hot, wet tropical climate.

Volcanoes: Krakatau (Vol. III, p. 252) and some 70 other active volcanoes.

Main activities

Agriculture: large estates and much subsistence farming, which together employ nearly 70 per cent. of population. Sugar, rubber, tea, rice, and other tropical crops. Oil producing and refining.

Main exports: rubber, tea, oils.

IRAN

See PERSIA.

IRAQ

c. 143,000 sq. m. (Vol. III, p. 234; map p. 17)

People: 4,799,500 (1947); density per sq. m. 28.

Arabs 80 per cent.; Kurds in north, and minorities of Turkomans, Persians, and others (Vol. I, p. 255).

Language: mainly Arabic.

Religion: mainly Islam; some Christianity.

Administration

Government: constitutional monarchy (full independence gained in 1932). Member of Arab League.

Principal city: Baghdad (cap.), pop. 552,047 (Vol. III, p. 45).

Distance from London to Baghdad: 2,570 miles.

Natural features

Country lies between the rivers Euphrates and Tigris (Mesopotamia), with narrow sea-coast on to Persian Gulf. Hills to the north and desert to the west.

Climate: extremes of temperature; cold winds.

Main activities

Agriculture in lowlands and foothills, depending on irrigation. Date palms, wheat, rice, cotton, and nomadic stock-breeding. Oil production (now main source of wealth).

Exports: crude oil, cereals, dates, wool and hides, raw cotton.

IRELAND (Irish Republic)

26,601 sq. m. (Vol. III, p. 235)

People: c. 2,960,593 (1951); density per sq. m. 111.

Irish (mainly of Celtic origin) (Vol. I, p. 257).

Languages: Irish (Gaelic, Vol. IV, p. 167), English.

Religion: Roman Catholic.

Administration

Government: republic (declared 1937). Member of British Commonwealth of Nations until 1949.

Principal city: Dublin (cap.), pop. 522,183 (Vol. III, p. 133).

Distance from London to Dublin: 300 miles.

Natural features

Flat central plain encircled by high land rising sharply from coast. Rocky coastline with many islands, especially on Atlantic. Many inland lakes; marshy bogs cover one-seventh of total area.

Climate mild, very wet in west.

Main activities

Agriculture: subsistence farming, fishing, horse-breeding, distilling.

Main exports: livestock, some whisky and tobacco.

ISRAEL

8,048 sq. m. (Vol. III, p. 332)

People: 1,717,834 (1954); density per sq. m. 195.

People of Jewish race who have immigrated from various other countries (Vol. I, p. 275). An Arab minority.

Language: Hebrew; Arabic.

Religion: mainly Jewish.

Administration

Government: republic (independent state proclaimed in 1948).

Principal cities: Jerusalem (cap.), pop. 155,000 (1950) (Vol. III, p. 245).

Jaffa-Tel Aviv, pop. c. 400,000.

Distance from London to Jerusalem: 2,240 miles.

Natural features

Hill country in north and south; long, flat, coastal strip; semi-desert in south-east; parts of Jordan valley (Vol. III, p. 247). Dead Sea (Vol. III, p. 122) 1,290 ft. below and Lake Tiberias 696 ft. below sea-level.

Main activities

Farming, mainly fruit and mixed farming, dependent on irrigation. Manufactures are expanding.

Main exports: citrus fruits and by-products, wine, olives, polished diamonds, textiles.

ITALY

131,000 sq. m. (Vol. III, p. 241; map, p. 160)

People: 47,138,235 (1951); density per sq. m. 360.

Italian (mixed Latin and Germanic origins) (Vol. I, p. 263).

Language: Italian, a Romance Language (Vol. IV, p. 375).

Religion: Roman Catholic 97 per cent.

Administration

Government: republic (established 1946). Union of Italian States into Kingdom of Italy completed 1870.

Principal cities: Rome (cap.), pop. 1,695,477 (1951) (Vol. III, p. 381).

Milan, pop. 1,272,934 (Vol. III, p. 288).

Naples, pop. 1,027,800 (Vol. III, p. 308).

Genoa, pop. 683,023 (Vol. III, p. 181).

Florence, pop. 390,832 (Vol. III, p. 166).

Venice, pop. 323,216 (Vol. III, p. 463).

Distance from London to Rome: 900 miles.

Natural features

Long boot-shaped peninsula bounded by Mediterranean (west) and Adriatic (east). Two large islands: Sicily (Vol. III, p. 402); Sardinia (Vol. III, p. 392).

Very fertile northern plain (Po Valley) supports 40 per cent. of population.

Mountains: Apennines; Alps in north; Vesuvius and Etna still active volcanoes.

Main activities

Farming (about 47 per cent. of population); textile and motor-car manufactures; chemical industry; tourist trade.

Main exports: textiles, machinery.

JAPAN

142,275 sq. m. (Vol. III, p. 243)

People: c. 89,000,000 (1955); density per sq. m. 585.

Japanese; small section of aboriginal Ainu (Vol. I, p. 268).

Language: Japanese; Ainu in north; English used commercially.

Religion: Shinto (Vol. I, p. 433); Buddhism; some Christianity.

Administration

Government: monarchy (new constitution proclaimed 1946).

Principal cities: Tokyo (cap.), pop. 6,277,500 (1950) (Vol. III, p. 442).

Yokohama, pop. 951,189.

Osaka, pop. 1,956,136.

Distance from London to Tokyo: 5,910 miles.

Natural features

Four main islands: Hokkaido, Honshu, Shikoku, and Kyushu, with deeply indented coastlines. Mostly mountainous; only one-sixth of total area can be cultivated; some active volcanoes (Vol. III, p. 178); frequent earthquakes. Climate varies from sub-tropical to sub-arctic.

Main activities

Industries: silk, textile, rubber, chemicals, paper and toy manufactures; shipbuilding; mining; agriculture (rice-growing, 56 per cent. of cultivated area); fishing.

Main exports: machinery, manufactured goods, tea, silk and other textiles, copper.

JORDAN

34,750 sq. m. (Vol. III, p. 332)

People: c. 1,250,000 (1950); density per sq. m. 36.

Arab; Palestinian.

Language: Arabic.

Religion: Islam (state religion), mainly Sunni sect.

Administration

Government: monarchy (independent state proclaimed 1946). Member of Arab League.

Principal city: Amman (cap.), pop. c. 170,000 (1950).

Distance from London to Amman: 2,300 miles.

Natural features

Country is bounded by Syria (north), Israel (west), Saudi Arabia (south), and Iraq (east). Valley of River Jordan (Vol. III, p. 247) and terraced high land are fertile, but there is much soil erosion; remainder is desert or arid steppe.

Main activities

Agriculture, chiefly fruit-growing on terraced hillsides. Some oranges exported.

LAOS

91,405 sq. m. (Vol. III, p. 232: INDO-CHINA; map, p. 87)

People: c. 2,000,000 (1954).

Mainly Thai; Indonesian; and Ho, Yao, and Meo peoples of Chinese origin (Vol. I, p. 249).

Language: a Chinese language.

Religion: mainly Buddhism.

Administration

Government: monarchy (independent kingdom 1947).

Principal cities: Luang Prabang (royal cap.), pop. c. 15,000 (1953).

Vientiane (administrative cap.), pop. c. 20,000 (1953).

Natural features

A mountainous country in north-west Indo-China. Large areas of dense forest, swampy valleys, and tropical jungle.

LEBANON

Main activities

Agriculture: rice, maize, tobacco, coffee-growing.
Some silk-weaving, pottery.
Exports: rice, rubber, maize, teak.

LEBANON

c. 4,300 sq. m. (Vol. III, p. 429; map, p. 17)

People: est. 1,300,000 (1954); density per sq. m. 367.

Mainly Arab; minorities of Armenian, Kurd, Turkish, or European descent (Vol. I, p. 464: SYRIANS).

Languages: Arabic; English; French.

Religion: about 55 per cent. Christian; Islam (Sunni and Shiah sects).

Administration

Government: republic (independence proclaimed 1941).
Member of Arab League.

Principal city: Beirut (cap.), pop. c. 400,000.

Distance from London to Beirut: 2,150 miles.

Natural features

Small, mountainous country on eastern Mediterranean coast north of Israel. Fertile coastal region and valley lying between mountain ranges of Lebanon and Anti-Lebanon. 22 per cent. of land is cultivated; soil erosion considerable.

Main activities

Agriculture, mainly fruit, olive, silk, and tobacco-growing.

Exports: citrus fruits, olive oil, and vegetables.

LIBERIA

c. 43,000 sq. m. (Vol. III, p. 208: GUINEA LANDS; map, p. 5)

People: c. 1,250,000 (1950); density per sq. m. 47.

African Negroes (Vol. I, p. 337).

Language: English; African languages.

Religion: Christianity, mainly Roman Catholic; Islam.

Administration

Government: republic (founded in 1820 as settlement for freed American slaves).

Principal city: Monrovia (cap.), pop. c. 35,000.

Distance from London to Monrovia: 3,150 miles.

Natural features

Fertile coastal area; large swamps; thick jungle and tropical forests.

Climate: tropical with very heavy rainfall.

Main activities

Rice, coffee, banana, and sugar-growing; mining.

Main exports: rubber (90 per cent of exports), iron ore, gold, palm oil and kernels, piassava fibre.

LIBYA

c. 679,358 sq. m. (Vol. III, p. 256; map, p. 5)

People: c. 1,125,000 (1952); density per sq. m. 2.

Principally Arab, some Berbers and African Negroes (Vol. I, p. 424); Italian minority in Tripolitania.

Language: Arabic; Italian; Berber languages.

Religion: Islam.

Administration

Government: hereditary monarchy (independent state created 1951).

Principal cities: Tripoli, pop. c. 142,000.

Benghazi, pop. c. 60,000.

Distance from London to Tripoli 1,380 miles.

Natural features

Country consists mainly of barren, stony plains and part of the Sahara Desert (Vol. III, p. 388), with small oases. Fertile coastal area.

Climate: hot and dry.

Main activities

Agriculture: mainly fruit-growing—citrus fruits, olives, dates, and almonds. Some tobacco-growing; sponge-fishing; weaving, especially carpets.

Main exports: olive oil, esparto grass, sponges.

LIECHTENSTEIN

62 sq. m. (Vol. III, p. 257)

People: 13,757 (1950); density per sq. m. 230.

German; Swiss.

Language: German.

Religion: Roman Catholic.

Administration

Government: constitutional principedom (principality founded 1719); linked economically with Switzerland.

Principal city: Vaduz (cap.), pop. 2,772.

Distance from London to Vaduz: 520 miles.

Natural features

Hilly, mainly fertile country on the Upper Rhine, between Austria and Switzerland. Some forests and Alpine pastures.

Main activities

Farming: fruit-growing, cattle-rearing; some manufactures: leather goods, artificial teeth, and iron-mongery.

LUXEMBURG

1,000 sq. m. (Vol. III, p. 266; map, p. 160)

People: 296,000 (1951); density per sq. m. 296.

French, Dutch, Belgian, and German.

Languages: Letzeburgesch (French is official language); German.

Religion: mainly Roman Catholic.

Administration

Government: constitutional Grand Duchy created 1354 (independence established 1839). Linked economically with Belgium and Holland (Benelux).

Principal city: Luxemburg (cap.), pop. 61,996 (1948).

Distance from London to Luxemburg: 365 miles.

Natural features

Mainly hilly and rocky country between Belgium, Germany, and France.

Considerable forests containing deer and wild boar.

Main activities

Mining (iron, copper, lead); metallurgical industries; agriculture (mainly oat and potato crops); flower cultivation.

Main exports: iron ore, manufactured goods, flowers.

MEXICO

760,375 sq. m. (Vol. III, p. 287)

People: c. 25,791,017 (1950); density per sq. m. 34.

American Indians (about 30 per cent.); mixed Indian and European (mainly Spanish) (Vol. I, pp. 7,312).

Languages: Spanish, Indian languages.

Religion: predominantly Roman Catholic (no state religion).

Administration

Government: federal republic (established 1867).

Independence gained from Spain 1821; constitution amended 1917.

Principal city: Mexico City (cap.), pop. 2,234,795 (1950).

Distance from London to Mexico City: 5,600 miles.

Natural features

Southernmost part of North American continent (Vol. III, p. 317). Narrow coastal plains with fertile cultivated clearings in semi-tropical forests. Mountain ranges and high central plateaux. Scrub and desert to north. Many volcanoes (Vol. III, p. 334).

Main activities

Agriculture: maize grown on 55 per cent. of cultivated land; sisal production (50 per cent. of world's supply); mining: silver (57 per cent. of world production), gold, copper, lead, coal; oil-drilling and refining.

Main exports: coffee, sisal, silver and other metals, oil, timber, fish, cotton.

MONACO

4 sq. m. (Vol. III, p. 174b: FRANCE)

People: 20,202 (1951); density per sq. m. 5,050.

French.

Language: French.

Religion: mainly Roman Catholic.

Administration

Government: principality (founded 1297); linked economically with France.

Principal cities: Monaco; Monte Carlo.

Distance from London to Monaco: 620 miles.

Natural features

Small principality on Mediterranean coast of France, entirely built-up area.

Fine Mediterranean climate.

Main activities

Almost exclusively connected with tourist trade, especially management of Monte Carlo casino (annual average of 65,000 visitors).

MONGOLIA

c. 587,135 sq. m. (Vol. III, p. 294)

People: est. 1,100,000; density per sq. m. 2.

Mongolian (Vol. I, p. 323).

Language: Turkic languages.

Religion: Buddhism (Lamaist form).

Administration

Government: 'People's Republic' (proclaimed 1924; independence from China gained 1945).

Principal town: Ulan Bator (Urga) (cap.), pop. c. 80,000.

Natural features

Country of high barren plateaux surrounded by mountains. High steppe southwards to Gobi Desert (Vol. III, p. 128). Extreme climate.

Main activities

Cattle- and sheep-breeding by nomads; very little agriculture.

Livestock, wool, hides, and hair are used for foreign exchange.

NEPAL

54,000 sq. m. (Vol. III, p. 309; map, p. 229)

People: c. 8,431,537 (1953); density per sq. m. 159.

Mongols and Hindu Gurkhas (Vol. I, p. 246).

Language: Nepalese, akin to Tibetan.

Religion: Hinduism; Buddhism.

Administration

Government: monarchy.

Principal city: Kátmádu (cap.), pop. c. 108,805.

Natural features

A south Himalayan kingdom between India and Tibet (Vol. III, p. 216), including Mt. Everest (Vol. III, p. 161) and Kangchenjunga. Fertile valleys with tropical vegetation; valuable forests in south.

Main activities

Farming and forestry.

Main exports: rice, jute, timber, medicinal herbs, oil-seed, hides and cattle.

NETHERLANDS

See HOLLAND.

NEW ZEALAND

103,740 sq. m. (Vol. III, p. 312)

People: 2,147,155 (1955); density per sq. m. 18.

New Zealanders of British descent 94 per cent. (Vol. I, p. 340); aboriginal Maoris (Vol. I, p. 294).

Languages: English, Maori.

Religion: Church of England, Presbyterian, Roman Catholic, Methodist.

Administration

Government: constitutional monarchy; member of British Commonwealth of Nations; colony founded 1840 (Vol. X, p. 300).

Principal cities: Wellington (cap.), pop. 142,900 (1955) (Vol. III, p. 482).

Auckland, pop. 372,900.

Christchurch, pop. 190,200.

Distance from London to Wellington: 11,510 miles.

Natural features

Two large and many very small islands in South Pacific Ocean. Mountainous country with several active volcanoes and many glaciers and hot springs. A great number of large lakes and rivers, abounding in trout. Fertile farming land.

Climate: temperate, with little range between summer and winter.

Main activities

Sheep- and cattle-rearing; manufactures of food and other goods; mining; forestry.

Main exports: dairy produce, meat, canned foods, and wool.

NICARAGUA

c. 57,143 sq. m. (Vol. III, p. 78)

People: 1,057,023 (1950); density per sq. m. 18.

Mainly mixed American Indian and European. Some of pure Spanish descent and some pure Indian, especially Mosquito and Zambo Indians in the east. Some Negroes (Vol. I, p. 100).

Languages: Spanish, Indian languages.

Religion: Roman Catholic.

Administration

Government: republic (independence gained from Spain 1821).

Principal city: Managua (cap.), pop. 109,352 (1950).

Distance from London to Managua: 5,390 miles.

Natural features

Largest Central American state. Fertile Pacific coastal region; two great lakes; central mountain range.

Large areas of forest.

Main activities

Agriculture (70 per cent of population); forestry; gold- and silver-mining.

Main exports: coffee, bananas, cotton, gold, timber.

NORWAY

124,556 sq. m. (Vol. III, p. 319; map, p. 160)

People: c. 3,375,870 (1954); density per sq. m. 26.

Norwegians (Vol. I, p. 345) of Nordic origins.

Language: Norwegian (Bokmal and Nynorsk); some Lappish in north.

Religion: Lutheran Church, 96 per cent.

Administration

Government: constitutional monarchy (complete independence regained 1905).

Principal cities: Oslo (cap.), pop. 440,674 (1953) (Vol. III, p. 328).

Bergen, pop. 113,243.

Trondheim, pop. 58,344.

Distance from London to Oslo: 730 miles.

Natural features

Jagged Atlantic coastline with many fiords; central plateau cut by fertile valleys; barren and mountainous narrow northern strip. Spitsbergen (Svalbard) arctic archipelago (Vol. III, p. 420). Much forest land (24 per cent. of total area).

Climate: cold and rather dry, except on west coast.

Main activities

Forestry; fishing; mining; paper-making; canning; chemical and shipping industries.

Main exports: wood pulp and paper, whale oil, canned foods, minerals.

PAKISTAN

364,737 sq. m. (Vol. III, p. 332; map, p. 229)

People: c. 75,842,000 (1955); density per sq. m. (West) 108; (East) 777.

Pakistani, Muslim Indians: Pathans, Punjabi, Bengali, and other tribes (Vol. I, p. 244).

Languages: mainly Urdu (West), Bengali (East), English.

Religion: mainly Islam.

Administration

Government: republic, established 1955; member of British Commonwealth of Nations; separated from India 1947 (Vol. X, p. 309).

Principal cities: Karachi (cap.) pop. 1,009,000.

Lahore, pop. 849,476.

Dacca, pop. 411,000.

Distance from London to Karachi: 3,960 miles.

Natural features

West Pakistan: dry, mountainous country between Afghanistan and India; south-east watered by river Indus (Vol. III, p. 233) and tributaries; some forest areas.

East Pakistan (between Burma and India) is watered by rivers Ganges (Vol. III, p. 179) and Brahmaputra and tributaries; 64 per cent. of land under cultivation.

Monsoon climate.

Main activities

Agriculture (rice, cotton, wheat, sugar, hemp); some mining (West), fishing, cottage industries (East).

Main exports: jute, hemp, tea, cotton seed, hides.

PANAMA

29,133 sq. m. (Vol. III, p. 333; map, p. 78)

People: c. 805,285 (1950); density per sq. m. 29.

Negroes (14 per cent.); Europeans (Spanish descent) (12 per cent.); mixed 72 per cent. (Vol. I, p. 100: CENTRAL AMERICANS).

Languages: Spanish; English; Amerindian languages.

Religion: Roman Catholic (93 per cent.).

Administration

Government: republic (seceded from Colombia in 1903).

Principal city: Panama City (cap.), pop. 127,874.

Distance from London to Panama City: 5,310 miles.

Natural features

Long, narrow isthmus in Central America divided by Panama Canal and Zone (Vol. IV, p. 307). Extremely fertile country; nearly half land remains uncultivated. Valuable forest areas.

Tropical, unhealthy climate.

Main activities

Agriculture: rice, banana, coffee, and cocoa-growing; fishing; forestry; pearl fishing.

Exports: bananas, shrimps, cacao, fibre, mahogany, and hides.

PARAGUAY

c. 157,000 sq. m. (Vol. III, p. 333; map, p. 415)

People: c. 1,407,000 (1950); density per sq. m. 9.

Mestizos (mixed Spanish, European, and Guarani Indian) (Vol. I, p. 351). European and Canadian Nonconformist immigrants (c. 45,000).

Languages: Spanish, Guarani Indian.

Religion: mainly Roman Catholic.

Administration

Government: republic (independence gained from Spain 1811).

Principal city: Asunción (cap.), pop. 205,605.

Distance from London to Asunción: 6,360 miles.

Natural features

Landlocked South American country with grassy plains and densely forested hills. Two important navigable rivers, Paraguay and Parana.

Tropical climate.

Main activities

Agriculture: maize, cotton, sugar, peanuts, rice, and fruit-growing; cattle-breeding; forestry.

Main exports: meat, hides, yerba maté (Paraguayan tea), timber, and tannin.

PERSIA

c. 628,000 sq. m. (Vol. III, p. 336, map, p. 17)

People: 20,020,696 (1954); density per sq. m. 30.

Iranians, people of Turkish origin (Vol. I, p. 356).

Language: Persian (Farsi); Turkish.

Religion: Islam (Shiah and Sunni sects); Jewish and Armenian minorities.

Administration

Government: monarchy (Shah).

Principal cities: Teheran (cap.), pop. c. 989,871 (1950) (Vol. III, p. 433).

Abadan, pop. c. 110,000 (1950).

Distance from London to Teheran: 2,800 miles.

Natural features

About half Persia is arid tableland of salt deserts encircled, except in east, by mountains. Extensive forests in north and west, and valuable oilfields in south-west.

Main activities

Agriculture (80 per cent. of population); oil production, carpet-weaving, wool and cotton manufactures.

Main exports: petroleum, fruit, cotton, wool and hair, gum, carpets, and rice.

PERU

c. 533,916 sq. m. (Vol. III, p. 337; map, p. 415)

People: c. 10,000,000 (1954); density per sq. m. 16.

American Indians, descendants of the Incas (Vol. I, p. 357); Mestizos (mixed European, mainly Spanish, and Indian descent); Europeans (Vol. I, p. 359).

Languages: Spanish, Quechua and Aymara Indian.

Religion: 98 per cent. Roman Catholic.

Administration

Government: republic (independence gained 1824).

Principal city: Lima (cap.), pop. 835,468 (1950) (Vol. III, p. 260).

Distance from London to Lima: 6,270 miles.

Natural features

Mountainous rectangular-shaped country on west coast of South America. Narrow, temperate lowland along Pacific coastline (*costa*); central ranges of Andes Mts. (*sierra*); tropical jungle lowlands to east (*montana*).

Main activities

Agriculture: maize, cotton, sugar, wheat, rice, rubber, quinine, and tea-growing. Mining: petroleum, gold, silver, lead, zinc, and copper production.

Main exports: cotton, sugar, petroleum, and other minerals.

PHILIPPINES

114,830 sq. m. (Vol. III, p. 339; map, p. 87)

People: c. 21,000,000 (1954); density per sq. m. 168.

Filipinos, an Indonesian people (Vol. I, p. 250); an American and European (Spanish) community.

Languages: Indonesian languages (Tagalog); English; Spanish.

Religion: Roman Catholic (83 per cent.).

Administration

Government: republic (complete independence from America established 1946).

Principal cities: Manila (old cap.), pop. 1,200,000 (1953).

Oregon City (new cap.), pop. 107,977 (1948).

Distance from London to Manila: 6,620 miles.

Natural features

Eleven main islands and over 7,000 minor ones, some mere rocks, of the Malay Archipelago. Very rich forests of teak, ebony, sandalwood, rubber, and bamboo; fertile farmlands; mountainous areas with some active volcanoes.

Climate: tropical.

Main activities

Farming: rice, coconut, maize, sugar, manila hemp, tobacco crops.

Main exports: coconut products, sugar, timber.

POLAND

121,131 sq. m. (Vol. III, p. 344; map, p. 160)

People: c. 26,500,000 (1954); density per sq. m. 206.

Poles, a Slavonic people (Vol. I, p. 368).

Language: Polish.

Religion: Roman Catholic.

Administration

Government: 'People's Republic' (proclaimed in 1947).

Principal cities: Warsaw (cap.), pop. c. 965,000 (1955) (Vol. III, p. 471.)

Lódź, pop. 622,500 (1950).

Kraków, pop. 347,048 (1950).

Distance from London to Warsaw: 900 miles.

Natural features

Central European country with Baltic seaboard. Carpathian Mts. (Vol. III, p. 74) in south. Great central plain drained by Oder and Vistula and many small lakes and rivers. Large forest areas.

Main activities

Industry: textiles, jute, iron and steel; coal-mining.

Agriculture: rye, oats, potatoes, sugar beet, tobacco.

Main exports: textiles, coal, manufactured goods.

PORTUGAL

35,404 sq. m. (Vol. III, p. 349; map, p. 160)

People: 8,441,312 (1950); density per sq. m. 247.

Portuguese, a Mediterranean race (Vol. I, p. 373).

Language: Portuguese, Galician.

Religion: Roman Catholic.

Administration

Government: republic (proclaimed 1910); independent kingdom established 1143.

Principal cities: Lisbon (cap.), pop. 790,434 (1950) (Vol. III, p. 261).

Oporto, pop. 284,842 (1950).

Distance from London to Lisbon: 1,000 miles.

Natural features

Long, narrow country on Atlantic seaboard, together with the islands of the Azores (Vol. III, p. 44) and Madeira (Vol. III, p. 269). Narrow coastal plain; mountainous country to north; high plateau (*Meseta*) cut by rivers to east; dry, rolling plains to south.

Main activities

Agriculture, wine-production, fishing, forestry, textile and chemical manufactures, mining.

Main exports: cork, wine, sardines, olive oil, resin, wolfram.

ROUMANIA (Romania)

89,700 sq. m. (Vol. III, p. 383; map, p. 160)

People: 16,409,367 (1954); density per sq. m. 183.

Roumanians, a Latin people, 85 per cent. (Vol. I, p. 413); Magyar and German minorities, and small sections of many other peoples.

Language: Chiefly Roumanian, a Romance language (Vol. IV, p. 375).

Religion: Roumanian Orthodox Church about 86 per cent.

Administration

Government: 'People's Republic' (set up 1947).

Principal city: Bucharest (cap.), pop. c. 1,042,000 (1952) (Vol. III, p. 60).

Distance from London to Bucharest: 1,300 miles.

Natural features

Country in south-east Europe. Large plains in east; Transylvanian Alps and Carpathian Mts. (Vol. III, p. 74), with large forest areas in west and centre; Black Sea coastline; southern boundary formed by river Danube (Vol. III, p. 121).

Climate: very hot, dry summers, intensely cold winters.

Main activities

Agriculture: sheep- and cattle-rearing, cereal, flax, vegetable, and fruit-growing; oil production; recent developments in ship-building, mining, and oil-refining.

Main exports: petroleum, cereals, cattle, timber.

RUSSIA

8,954,000 sq. m. (Vol. III, pp. 384 and 458; map, p. 459)

People: c. 212,000,000 (1955); density per sq. m. 22.

About 100 million Russians (Vol. I, p. 413); 30 million Ukrainians; many Siberian peoples (Vol. I, p. 436) and Central Asian peoples (Vol. I, p. 445).

Languages: Russian (Cyrillic script); each autonomous republic decides its official language. 120 different languages used.

Religion: Russian Orthodox Church (disestablished 1918); Islam (Sunni) in Soviet Central Asia; Roman Catholic, Protestant, and Jewish communities.

Administration

Government: 'People's Republic', declared 1917. Union of sixteen Soviet Socialist Republics, the R.S.F.S.R. being by far the largest; series of 'soviets' culminating in Supreme Soviet of U.S.S.R. (Vol. X, p. 385).

Principal cities: Moscow (cap.), pop. c. 5,250,000 (1954) (Vol. III, p. 303).

Leningrad, pop. c. 3,150,000 (1954) (Vol. III, p. 256).

Kiev, pop. c. 900,000 (1954) (Vol. III, p. 250).

Nijni Novgorod (Gorki), pop. c. 900,000 (1954) (Vol. III, p. 320).

Distance from London to Moscow: 1,630 miles.

Natural features

Vast land area in eastern Europe and Asia (one-seventh of world's total). The Great Plain of Russia, broken only by the Ural Mts. (Vol. III, p. 456) and the mountains of eastern Siberia, is bounded on the south by the Caucasus Mts. (Vol. III, p. 75) and the Pamirs; and on the north by the Arctic Ocean. A land of long, navigable rivers: the Dvina, Dnieper, Dniester, Don, Ob, Yenisey, Lena, Amur, and the Volga (Vol. III, p. 468); and great inland seas. Extreme variations in climate account for great differences in types of vegetation and modes of life.

Main activities

Manufactures (about 85 per cent. of total); agriculture; mining; forestry.

Exports: mainly manufactured goods; some timber, ores, furs.

SALVADOR, EL

13,176 sq. m. (Vol. III, p. 78)

People: c. 2,100,000 (1954); density per sq. m. 159.

European, mainly of Spanish origin.

Language: Spanish.

Religion: Roman Catholic.

Administration

Government: republic (independence gained from Spain 1821).

Principal city: San Salvador (cap.), pop. 194,618 (1953).

Distance from London to San Salvador: 5,440 miles.

Natural features

Smallest, most densely populated of Central American states. Tropical coastal lowlands; higher or mountainous inland areas with some active volcanoes. 71 per cent. of land is cultivated.

Main activities

Coffee cultivation; rice, sugar, and cotton-growing.

Exports: coffee (87 per cent. of total) medicinal gum, indigo, rubber.

SA'UDI ARABIA

c. 800,000 sq. m. (Vol. III, p. 15)

People: c. 6,250,000; density per sq. m. about 11.

Arabs (Vol. I, p. 23); small numbers of nomadic Bedouin (Vol. I, p. 66).

Language: Arabic.

Religion: Islam (Moslems).

Administration

Government: monarchy. Two countries—Najd and Hejaz—united under one king in 1926. Member of Arab League.

Principal cities: Riyadh (cap. of Najd), pop. said to be 60,000–100,000.

Mecca (cap. of Hejaz), pop. said to be 120,000–150,000.

Distance from London to Mecca: 2,950 miles.

Natural features

Rock plateau of desert and steppe land cut by *wadis* (river beds); oasis settlements.

Hot desert climate.

The Arabian Peninsula also includes eight other independent states: Yemen (q.v.); Muscat and Oman (Sultanate); Kuwait, Bahrein, Qatar, and Trucial States (all, in 1955, British protected states); Aden (British Colony and Protectorate).

Main activities

Primitive agriculture and stock raising; oil-mining.
Exports: oil, dates, fish, wool.

SIAM

See THAILAND.

SOUTH AFRICA

472,685 sq. m. (Vol. III, p. 411; map, p. 5)

People: 12,667,759 (1951); density per sq. m. 27.

Africans (Vol. I, p. 337) 68 per cent.; Europeans 2,640,000; Coloured c. 1,102,000; Asians c. 323,000 (Vol. I, p. 442).

Languages: English; Afrikaans (Vol. IV, p. 171); African Languages (Vol. IV, p. 6).

Religion: mainly Protestant.

Administration

Government: constitutional monarchy (independent union constituted 1909) (Vol. X, p. 422). Member of British Commonwealth of Nations.

Principal cities: Pretoria (adm. cap.), pop. 285,379 (1951).

Johannesburg, pop. 912,339 (1951) (Vol. III, p. 246).

Cape Town (leg. cap.), pop. 632,987 (1951) (Vol. III, p. 73).

Durban, pop. c. 440,166.

Distance from London to Cape Town: c. 6,000 miles.

Natural features

Most southerly part of African continent. Narrow coastal lowlands rising over mountain ranges to high central plateau, with dry grasslands, 'High Veld'. Orange River, mainly dry in July.

Climate: variable, mainly dry.

Main activities

Mining (mainly gold, coal, iron, and diamonds); agriculture.

Main exports: gold, wool, copper, diamonds, wattle extract, maize, fruits, wine, coal, and asbestos.

SPAIN

194,425 sq. m. (Vol. III, p. 418; map, p. 160)

People: 28,292,426 (1952); density per sq. m. 143.

Spaniards (Vol. I, p. 448).

Language: Spanish—Castilian, Basque Catalan, Galician dialects.

Religion: Roman Catholic (state religion).

Administration

Government: dictatorship (set up 1939, after Civil War; nominally a kingdom since 1947, with succession to be determined by a Regency Council).

Principal cities: Madrid (cap.), pop. 1,641,954 (Vol. III, p. 269).

Barcelona, pop. 1,288,283.

Distance from London to Madrid: 805 miles.

Natural features

The greater part of the Iberian Peninsula; separated from the rest of Europe by the Pyrenees Mts. (Vol. III, p. 354). Mainly dry and barren mountainous country. Forested region and more fertile coastal area in north and north-west; dry central plateau (Meseta) crossed by 'Sierra' or jagged mountain ranges; hot Mediterranean southern valleys and coastal plain.

Climate: great extremes, especially on Meseta.

Main activities

Agriculture: olive, orange, and almond groves, vineyards; livestock farming; sardine fishing. Mining: coal, iron, quicksilver, and other minerals. Textile and leather manufactures.

Main exports: wine, oranges, olive oil, cork, and minerals.

SUDAN

967,500 sq. m. (Vol. III, p. 423; map, p. 5)

People: c. 8,764,000 (1953); density per sq. m. 9.

Arab (north); Nilotic and Negro (south) (Vol. I, pp. 338, 347).

Languages: Arabic, English, Sudanese languages.

Religion: mainly Islam (Sunni sect); small Christian communities.

Administration

Government: republic (independence gained from Britain and Egypt in 1955). Member of Arab League.

Principal cities: Khartoum (cap.), pop. c. 80,000.

Omdurman, pop. c. 130,400.

Distance from London to Khartoum: 3,075 miles.

Natural features

East African country lying south and east of Sahara Desert (Vol. III, p. 388). Dry, stony plains (Nubian Desert) in north, with poor pasture; Savannah and agricultural land in south, with areas of swamp, 'Sudd'. Valley of the upper Nile (Vol. III, p. 316), with rich forests.

Main activities

Cattle and sheep farming; millet (dura) and cotton-growing.

Main exports: cotton, gum Arabic.

SWEDEN

173,436 sq. m. (Vol. III, p. 426; map, p. 160)

People: 7,192,316 (1954); density per sq. m. 41.

Swedes (Vol. I, p. 460) largely Nordic in origin; Lapps (Vol. I, p. 284).

Language: Swedish; a little Lappish in north.

Religion: Evangelical Lutheran Church 98 per cent. (state religion).

Administration

Government: constitutional monarchy (kingdom established in ninth century).

Principal cities: Stockholm (cap.) pop. 769,714 (1954) (Vol. III, p. 422).

Göteborg, pop. 367,579 (1954).

Distance from London to Stockholm: 900 miles.

SWITZERLAND

115

TURKEY

Natural features

Eastern part of Scandinavian peninsula. Mountainous forested country in north; central cultivated lowland with many lakes; southern fertile coastal plains round forested highland of Småland. 56 per cent. of total land forested.

Climate: long, cold winters, short summers.

Main activities

Agriculture and forestry (27 per cent. of population); mining; fishing; paper, glass, iron, and steel manufactures.

Main exports: timber, pulp and paper, iron ore, iron and steel goods, matches.

SWITZERLAND

15,944 sq. m. (Vol. III, p. 428; map, p. 160)

People: 4,714,992 (1950); density per sq. m. 296.

Swiss (Vol. I, p. 462), mixed German, French, Italian, and Austrian descent.

Languages: German (72 per cent.), French (21 per cent.), Italian (6 per cent.), Romansch (1 per cent.).

Religion: Protestant (56 per cent.), Roman Catholic (41 per cent.).

Administration

Government: federal republic formed in 1291 (independence finally acknowledged by Holy Roman Empire in 1648).

Principal cities: Bern(e) (cap.), pop. 146,499 (1950) (Vol. III, p. 53).

Zürich, pop. 390,020 (1950).

Geneva, pop. 145,473 (1950) (Vol. III, p. 181).

Distance from London to Bern: 470 miles.

Natural features

Extremely mountainous country, 25 per cent. forested; Alps (Vol. III, p. 10) in south and east (61 per cent. of country), Jura Mts. in north-west (12 per cent. of country). Steep, cultivated mountain valleys and Alpine pastures; many lakes.

Main activities

Manufacturing: textiles, chemicals, clocks and watches, jewellery, chocolate; tourist industry; dairy farming.

Main exports: clocks and watches, cheese, chocolate, silk and embroidered goods, machinery.

SYRIA

72,234 sq. m. (Vol. III, p. 429; map, p. 17)

People: c. 3,655,904 (1953); density per sq. m. 49.

Syrians (Vol. I, p. 464) of mixed descent, mainly Arab with elements of Armenian, Kurd, and European.

Languages: Arabic, French.

Religion: mainly Islam (Sunni sect).

Administration

Government: republic (independence proclaimed 1941). Member of Arab League.

Principal city: Damascus (cap.), pop. 372,708 (Vol. III, p. 120).

Distance from London to Damascus: 2,220 miles.

Natural features

Mainly steppe or desert plateau land (two-thirds of total area). Mountain ranges in west running down to fertile, densely populated coastal region.

Valley of River Euphrates.

Climate: mainly hot and rather dry.

Main activities

Agriculture (wheat, barley, cotton, tobacco, and fruit-growing); leather, textile, and cement manufactures.

Main exports: animals, skins and hides, vegetable products, fruit, olives, cotton, and cereals.

THAILAND

198,247 sq. m. (Vol. III, p. 402; SIAM; map, p. 87)

People: c. 17,517,742 (1947); density per sq. m. 88.

Siamese (Thai) (Vol. I, p. 435); some Chinese, Malays and Europeans.

Language: Thai, a Chinese language.

Religion: Buddhism.

Administration

Government: monarchy (constitutional form established 1932).

Principal city: Bangkok (cap.), pop. c. 1,116,600 (1947) (Vol. III, p. 46).

Distance from London to Bangkok: 5,880 miles.

Natural features

Densely forested foothills in north, and west; fertile, well-watered plain in east. Valuable tin and wolfram mines in southern part of peninsula.

Main activities

Agriculture and fishing (91 per cent. of population): rice, coconut, tobacco, pepper, and cotton-growing; forestry; mining.

Main exports: rice (66 per cent. of total), tin ore, teak, fish, coconuts, chillies, wolfram.

TURKEY

294,502 sq. m. (Vol. III, p. 447; map, p. 17)

People: 24,109,641 (1955); density per sq. m. c. 84.

Turks (Vol. I, p. 477) of Turanian and Mongol descent. Kurd minority—about 9 per cent.

Language: Turkic (Osmanli) (Vol. IV, p. 470).

Religion: Islam 98 per cent.

Administration

Government: republic (declared 1923).

Principal cities: Ankara (cap.), pop. 286,781 (1950).

Istanbul, pop. 1,000,022 (1950) (Vol. III, p. 239).

Distance from London to Ankara: 1,710 miles.

Natural features

Fertile plains and valleys on Mediterranean and Black Sea coasts (about 15 per cent. of land cultivated); large forest areas in north; central high Anatolian plateau, part arid, part pastureland; mountains to east.

Climate: temperate.

Main activities

Farming: wheat, barley, tobacco, cotton, fruit, sugar-beet; mining; manufactures: textiles, paper, cement, glass, food products, and chemicals.

Main exports: tobacco, cotton, dried fruits, nuts, minerals.

UNITED STATES OF AMERICA

2,974,726 sq. m. (Vol. III, p. 452; map, p. 318)

People: c. 165,500,000 (1955); density per sq. m. c. 55.

Americans (Vol. I, p. 15), mainly of mixed European origins; North American Indians: 343,410 (Vol. I, p. 9); American Negroes: c. 15 million (Vol. I, p. 13); Eskimoes in Alaska (Vol. I, p. 162).

Languages: English; communities speaking various European, Oriental, and American-Indian languages. Religion: mainly Protestant denominations; Roman Catholic.

Administration

Government: federal republic of 48 states (Constitution adopted 1787) (Vol. X, p. 20).

Principal cities: Washington, D.C. (cap.), pop. 802,178 (Vol. III, p. 472).

New York, pop. 7,891,957 (Vol. III, p. 311).

Chicago, pop. 3,620,962 (Vol. III, p. 84).

Philadelphia, pop. 2,071,605.

Los Angeles, pop. 1,970,358 (Vol. III, p. 265).

Detroit, pop. 1,849,568.

Boston, pop. 801,444 (Vol. III, p. 56).

San Francisco, pop. 775,357 (Vol. III, p. 391).

Distance from London to New York: 3,350 miles.

Natural features

Rocky Mountains ranges (Vol. III, p. 380) run up western side; Appalachian Mts. (Vol. III, p. 14) run up eastern side. Between these lie vast undulating prairies, with Colorado Desert in south-west (Vol. III, p. 102). Densest population on eastern coast. Fruit-growing area on western coast, with great forests farther north. Great Lakes (Vol. III, p. 201) lie between U.S.A. and Canada.

Rivers: Mississippi (Vol. III, p. 293) and great tributaries.

Climate: varies from sub-tropical in south-east to temperate or cold in north.

Main activities

These vary greatly from region to region and include most human activities. Cotton, rice, sugar, and tobacco-growing in southern states; fruit-growing in south-west; lumbering in north-west; wheat-farming and cattle-breeding on prairies. Petroleum, zinc, lead, and other minerals are mined. Manufacturing centres in all parts of the country.

Exports: very varied; mainly machinery and manufactured goods, petroleum, and wheat.

URUGUAY

72,133 sq. m. (Vol. III, p. 457; map, p. 415).

People: c. 2,550,000 (1953); density per sq. m. 35.

Uruguayans (Vol. I, p. 482) entirely of European, chiefly Spanish and Italian, descent.

Language: Spanish.

Religion: Roman Catholic.

Administration

Government: republic (independence gained from Brazil 1828).

Principal city: Montevideo (cap.), pop. 837,621 (1953) (Vol. III, p. 296).

Distance from London to Montevideo: 6,800 miles.

Natural features

Smallest South American state. Mainly undulating grasslands, especially in south and west, broken by rocky ridges in north towards Brazil. Lagoons on south-eastern coast.

Climate: mild, little variation between summer and winter.

Main activities

Cattle- and sheep-rearing; farming; fruit-growing; textile, leather, cement, and canning industries.

Main exports: meat and meat products, wool, leather, hides, and sunflower-seed oil.

U.S.S.R.

See RUSSIA.

VENEZUELA

352,143 sq. m. (Vol. III, p. 462; map, p. 415)

People: 5,034,838 (1950); density per sq. m. 14.

Venezuelans (Vol. I, p. 485), mainly of mixed American Indian and European, with some African Negro, blood.

Language: Spanish.

Religion: Roman Catholic.

Administration

Government: republic of 20 states (independence from Spain declared 1811; separated from Colombia 1830).

Principal city: Caracas (cap.), pop. 693,896 (1950).

Distance from London to Caracas: 4,630 miles.

Natural features

The most northerly South American country. The most northerly branches of the Andes Mts. run north and north-eastwards, with high, snowclad peaks. The Orinoco river valley provides hot, wet grasslands (*llanos*) in the west, and hot, swampy, coastal jungles.

There are rich oil deposits in the north-west.

Climate: tropical.

Main activities

Petroleum industry; agriculture (20 per cent. of population); forestry; iron- and gold-mining.

Main exports: petroleum (94 per cent. of total), coffee, cocoa.

VIETNAM

128,924 sq. m. (Vol. III, p. 232; INDO-CHINA; map, p. 87)

People: c. 22,612,870 (1953); density per sq. m. 175.

Vietnamese (Indo-Chinese); various primitive tribes in north (Vol. I, p. 249).

Languages: Annamite, Siamese (Chinese languages).

Religion: Taoism, Buddhism (Vol. I, pp. 81, 112).

Administration

Government: North Vietnam: 'People's Republic';
South Vietnam: interim monarchy under Emperor
Bao Dai until 1955, with representative National
Assembly.

Principal cities: Southern Zone: Saigon (cap.), pop.
1,614,200 (1953).

Northern Zone: Hanoi (cap.), pop.
297,900 (1953).

Natural features

Mountains in north, with densely populated Red River
delta and coastal plain in north-east; great mineral
wealth. Very fertile plain of Mekong Valley and
Delta, and narrow coastal strip in south.

Climate: tropical monsoon.

Main activities

Agriculture: rice, rubber, tea, coffee-growing; also
quinine and cinnamon in south; fishing; mineral and
coal-mining in north. Brewing and distilling; soap,
sugar, and tanning industries.

Main exports: rice (south).

YEMEN

c. 75,000 sq. m. (Vol. III, p. 16: ARABIA)

People: c. 4,500,000 (1953).

Arabs.

Language: Arabic.

Religion: Islam (Shiah sect).

Administration

Government: monarchy (the Imam); member of Arab
League.

Principal city: San'a, pop. c. 50,000.

Distance from London to San'a: c. 3,500 miles.

Natural features

Red Sea country in South West Arabia. Mountains on
east, with cultivated hillsides and coastal plain.

Climate: dry sirocco wind (Vol. III, p. 405); monsoon
rains.

Main activities

Mainly agriculture depending on irrigation: cereals,
coffee, and dates; stock raising, mainly camels and
goats.

Exports: Mocha coffee, hides, dates.

YUGOSLAVIA

99,000 sq. m. (Vol. III, p. 494; map, p. 160)

People: c. 16,927,275 (1953); density per sq. m. 159.

Yugoslavs (Vol. I, p. 492): Slav peoples: with mainly
Serbs, Croats, and Slovenes, Macedonians and
Montenegrians.

Languages: Serbo-Croat, Slovene, Macedonian.

Religion: Eastern Orthodox (47 per cent.); Roman
Catholic (36 per cent.); Islam (11 per cent.).

Administration

Government 'Federal People's Republic' (proclaimed
1945).

Principal cities: Belgrade (cap.), pop. 469,988 (Vol. III,
p. 51).

Zagreb, pop. 350,452.

Distance from London to Belgrade: 1,600 miles.

Natural features

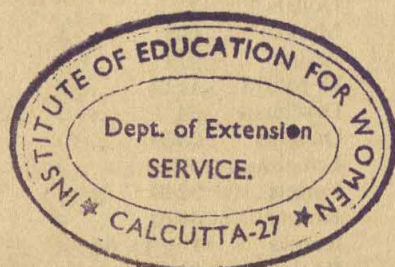
Very fertile Danube plain in north east, 34 per cent. of
land is cultivated; mountainous country from centre
to south and west; forested hills and many lakes in
northwest. Dalmatian Islands off rugged Adriatic
coast.

Climate: Mediterranean near coast, hot summers and
very cold winters to north and east.

Main activities

Agriculture (70 per cent. of population): wheat, maize,
tobacco, hemp, and fruit growing; stock breeding;
forestry; mining: coal, copper, lead, iron, gold, and
chrome.

Main exports: timber, lead, copper, tobacco, livestock,
and fruit.



FOREIGN CURRENCIES

This list gives the names of currencies used in most of the main countries of the world, and the exchange rates between these currencies and the English £, as they stood in September 1955. These rates vary a little up or down according to the value of the currency on the international market (see Vol. VII, p. 371). For example, in September 1954 the £ was worth 982 French francs, whereas in September 1955 the £ was worth only 973. The rate of exchange between Britain and many countries did not change at all during this period, and a few moved in favour of the £. In general, however, the £ dropped in value a little between 1954 and 1955.

<i>Country</i>	<i>Name of currency</i>	<i>Value of £ in Sept. 1955</i>	<i>Country</i>	<i>Name of currency</i>	<i>Value of £ in Sept. 1955</i>
Argentina	Pesos	38.90 = £1 (F.M.)	Italy	Lire	1,738 = £1
Australia	£A	£A125 = £100	Japan	Yen	1,002.83 "
Austria	Schillings	72.75 = £1	Lebanon	Lebanese £	8.92 " (F.M.)
Belgium	Francs	139 "	Luxembourg	Francs	139 "
Bolivia	Bolivianos	532 "	Mexico	Pesos	34.90 "
Brazil	Cruzeiros	187½ = £1 (F.M.)	Netherlands	Guilders	10.57 "
Burma	Kyat	1 = 1s. 6d.	N.W. Indies	Guilders	5.28½ "
Canada	Dollars	2.75½ = £1 (F.M.)	New Zealand	£N.Z.	£N.Z.100½ = £100
Ceylon	Rupees	1 = 1s. 6d.	Nicaragua	Cordobas	19.60 = £1
Chile	Pesos	2,170 = £1 (F.M.)	Norway	Kroner	19.99½ "
Colombia	Pesos	7.04 = £1	Pakistan	Rupees	1 = 1s. 6d.
Costa Rica	Colons	15.61 "	Paraguay	Guaranies	182 = £1 (F.M.)
Cuba	Pesos	2.78 "	Persia	Rials	89.60 = £1
Czechoslovakia	Crowns	20.16 "	Peru	Soles	52.80 " (F.M.)
Denmark	Kroner	19.33 "	Philippines	Pesos	5.57½ "
Dominica	Pesos	2.78 "	Poland	Zlotys	11.20 "
Ecuador	Sucres	51½ = £1 (F.M.)	Portugal	Escudos	80 "
Egypt	£E (100, piastres)	£E97½ = £100	Roumania	Lei	16.80 "
El Salvador	Colons	7 = £1	Spain	Pesetas	30.66 "
Ethiopia	Dollars E	7 "	Sweden	Kronor	14.38½ "
Finland	Markka	643 "	Switzerland	Francs	12.16 "
France	Francs	973 "	Syria	Syrian £	9.80 "
Germany	D. Marks	11.68 "	Thailand	Bhats	60.65 "
Greece	Drachmae	84 "	Turkey	£T	7.87 "
Guatemala	Quetzals	2.80 "	Union of South Africa	£S.A.	100 "
Honduras	Lempiras	5.57½ "	U.S.A.	Dollars	2.78 "
Hungary	Forints	32.87 "	U.S.S.R.	Roubles	11.20 "
Iceland	Krónur	45.62 "	Uruguay	Pesos	9.62 " (F.M.)
India	Rupees	1 = 1s. 6d.	Venezuela	Bolivars	9.32 " "
Indonesia	Rupiahs	31.80 = £1	Yugoslavia	Dinars	840 "
Iraq	Dinars	1 "			

N.B. (F.M.) = free market rates. The official rate is in all these cases a good deal less. For example the official rate for Brazil is 52 Cruzeiros = £1.

A few countries, such as Spain and Yugoslavia, offer special rates to tourists.

MOTOR VEHICLE INTERNATIONAL REGISTRATION LETTERS

(as established by the International Conventions of 1926 and 1949)

A	Austria	IN	Indonesia
ADN	Aden	IND	India
AL	Albania	IR	Iran (Persia)
AUS	Australia	IRQ	Iraq
B	Belgium	IS	Iceland
BA	Burma	JA	Jamaica
BG	Bulgaria	JO	Johore (Malaya)
BH	British Honduras	KD	Kedah „
BL	Basutoland	KL	Kelantan „
BP	Bechuanaland	KWT	Kuwait
BR	Brazil	L	Luxembourg
BRG	British Guiana	MC	Monaco
BRN	Bahrein	MEX	Mexico
BS	Bahamas	MOC	Mozambique
C	Cuba	MS	Mauritius
CA	Canada	MT	Tangier (Zone)
CB	Belgian Congo, Ruanda Urundi	N	Norway
CH	Switzerland	NIC	Nicaragua
CL	Ceylon	NL	Netherlands
CO	Colombia	NP	Nyasaland
CS	Czechoslovakia	NR	Northern Rhodesia
CU	Curaçao	P	Portugal
CY	Cyprus	PA	Panama
D	Germany	PAK	Pakistan
DK	Denmark, Faroe Islands	PAN	Portuguese West Africa
DOM	Dominican Republic	PE	Peru
E	Spain	PI	Philippine Islands
EAK	Kenya	PL	Poland
EAT	Tanganyika	PS	Perlis (Malaya)
EAU	Uganda	PY	Paraguay
EAZ	Zanzibar, Pemba	R	Roumania
EIR	Republic of Ireland	RA	Argentina
EQ	Ecuador	RC	China
ET	Egypt	RCH	Chile
F	France	RH	Haiti
FL	Liechtenstein	RL	Lebanon
FM	Federation of Malaya	RSM	San Marino
G	Guatemala	S	Sweden
GB	Great Britain and Northern Ireland	SA	Saar
GBA	Alderney	SD	Swaziland
GBG	Guernsey	SF	Finland
GBJ	Jersey	SGP	Singapore
GBM	Isle of Man	SK	Sarawak
GBY	Malta	SM	Siam (Thailand)
GBZ	Gibraltar	SME	Dutch Guiana
GR	Greece	SNB	British North Borneo
H	Hungary	SP	British Somaliland
HK	Hong Kong	SR	Southern Rhodesia
I	Italy	SS	Straits Settlements
IL	Israel	SU	Union of Soviet Socialist Republics

SWA	South West Africa
SY	Seychelles
SYR	Syria
TC	French Cameroons
TD	Trinidad and Tobago
TR	Turkey
TT	East Togoland
TU	Trengganu (Malaya)
U	Uruguay
USA	United States of America
V	Vatican City

WAC	Gold Coast
WAG	Gambia
WAL	Sierra Leone
WAN	Nigeria, British Cameroons
WD	Dominica (Windward Islands)
WG	Grenada (Windward Islands)
WL	St. Lucia (Windward Islands)
WV	St. Vincent (Windward Islands)
YU	Yugoslavia
ZA	Union of South Africa

WEIGHTS AND MEASURES

AVOIRDUPOIS WEIGHT

BRITISH		AMERICAN	
16 drams	= 1 ounce (oz.)	16 drams	= 1 ounce
16 ounces	= 1 pound (lb.)	16 ounces	= 1 pound
14 pounds	= 1 stone (st.)	25 pounds	= 1 quarter
28 pounds	= 1 quarter (qr.)	4 quarters	= 1 hundredweight
4 quarters	= 1 hundredweight (cwt.)	or 100 pounds	
or 112 pounds		20 hundredweight	= 1 'short' ton
20 hundredweight	= 1 'long' ton	or 2,000 pounds	
or 2,240 pounds			

MEASURES OF CAPACITY

BRITISH		AMERICAN	
20 fluid ounces	= 1 pint	16 fluid ounces	= 1 pint
or 4 gills		2 pints	= 1 quart
2 pints	= 1 quart	4 quarts	= 1 Winchester gallon
4 quarts	= 1 imperial gallon	2 gallons	= 1 peck
2 gallons	= 1 peck	4 pecks	= 1 bushel
4 pecks	= 1 bushel	8 bushels	= 1 quarter
8 bushels	= 1 quarter		

1 imperial gallon = 277.274 cubic inches.

1 Winchester or wine gallon = 231 cubic inches.

LINEAR MEASURES

7.92 inches	= 1 link
12 inches	= 1 foot
3 feet	= 1 yard
5½ yards	= 1 rod, pole, or perch
22 yards or 4 rods or 100 links	= 1 chain
10 chains or 220 yards	= 1 furlong
8 furlongs or 1,760 yards	= 1 mile

MEASURES OF AREA

144 sq. in.	= 1 sq. foot
9 sq. ft.	= 1 sq. yard
30.25 sq. yds.	= 1 sq. rod
40 sq. rods	= 1 rood
4 roods or 160 sq. rods or 4,840 sq. yds.	= 1 acre
640 acres	= 1 sq. mile

NAUTICAL MEASURES

6 feet	= 1 fathom
608 feet	= 1 cable
6,080 feet or 2,026.6 yards	= 1 nautical mile
3 nautical miles	= 1 league

METRIC SYSTEM

WEIGHTS

10 milligrammes	= 1 centigramme
10 centigrammes	= 1 decigramme
10 decigrammes	= 1 gramme
10 grammes	= 1 decagramme
10 decagrammes	= 1 hectogramme
10 hectogrammes	= 1 KILOGRAMME
1,000 kilogrammes	= 1 metric ton

MEASURES OF CAPACITY

10 millilitres	= 1 centilitre
10 centilitres	= 1 decilitre
10 decilitres	= 1 LITRE
10 litres	= 1 decalitre
10 decalitres	= 1 hectolitre

MEASURES OF LENGTH

10 millimetres	= 1 centimetre
10 centimetres	= 1 decimetre
10 decimetres	= 1 METRE
10 metres	= 1 decametre
10 decametres	= 1 hectometre
10 hectometres	= 1 KILOMETRE

SOME COMMONLY USED WEIGHTS AND MEASURES
WITH THEIR BRITISH OR METRIC EQUIVALENTS

WEIGHTS

100 grammes	= 3.52 oz.	1 oz.	= 28.3 grammes
1 kilogramme	= 2.205 pounds	1 pound	= 0.4535 kilogramme
1 short ton	= 2,000 pounds	1 cwt.	= 50.8022 kilogrammes
1 long ton	= 2,240 pounds	1 ton	= 1,016 kilogrammes

CAPACITY

1 litre	= 1.76 pints	1 pint	= 0.568 litre
1 hectolitre	= 22 gallons	1 gallon	= 4.5459 litres

LENGTH

1 centimetre = 0.39 inch

1 metre = 39.37 inches

1 kilometre = 0.621 mile

1 foot = 0.3048 metre

1 yard = 0.91439 metre

1 mile = 1.6093 kilometres

(5 miles = approx. 8 kilometres)

AREA

1 hectare = 2.471 acres

ANGULAR MEASURES

60 seconds (") = 1 minute (')

60 minutes = 1 degree (°)

90 degrees = right angle or quadrant

4 quadrants

or

360 degrees = revolution.

FAHRENHEIT AND CENTIGRADE TEMPERATURE

<i>Centigrade</i> (Celsius)	<i>Fahrenheit</i>
-17.8°	0°
-10°	14°
0°	32°
10°	50°
20°	68°
30°	86°
40°	104°
50°	122°
60°	140°
70°	158°
80°	176°
90°	194°
100°	212°

To convert Centigrade into Fahrenheit: multiply by 9, divide by 5, and add 32.

To convert Fahrenheit into Centigrade: subtract 32, multiply by 5, and divide by 9.

A GUIDE TO THE PRINCIPAL PEOPLE AND PLACES IN THE OLD AND NEW TESTAMENTS

THE following alphabetical list aims at giving a very short statement about the more prominent people and places in the Bible, with references to the books of the Bible in which they occur. This list makes no attempt to be complete: it does, however, include characters who may be met with in other contexts, in great literature, for example, such as AHITOPHEL (Dryden's Achitophel) or ATHALIAH (Racine's Athalie). It also includes people or places which have become well known because of sayings or ideas connected with them: 'Tell it not in GATH, publish it not in the streets of ASKELON', for example, and NIMROD, the mighty hunter, JEHU who drove furiously, or METHUSELAH. In some cases, where the Biblical characters are also people of general historical importance, such as CYRUS or XERXES, Kings of Persia, or DAVID, King of the Hebrews, reference is also made to their biographies in Vol. V.

The reader is advised to use this list with a Bible at hand, for the entries here depend on the Biblical references for completion and for their main interest.

- Aaron.** Brother to MOSES and member of tribe of Levi; appointed to assist Moses as leader of the Israelites (Exod. iv. 14, &c.). He and his sons were consecrated priests (xxviii-xxix), and his descendants were priests.
- Aaron's Rod.** The rod by which the plagues were brought upon the Egyptians (Exod. vii-viii); also that which budded in the tabernacle (Num. xvii. 2-8).
- Abaddon.** The king of the underworld or hell; in Greek, Apollyon ('The Destroyer') (Rev. ix. 11).
- Abba.** Aramaic word for Father (Mark xiv. 36; Rom. viii. 15).
- Abed-Nego.** Babylonian name for Azariah, friend of Daniel (Dan. i. 7, ii. 49, iii. 12-30).
- Abel.** Second son of Adam, murdered by his brother Cain (Gen. iv. 2-25).
- Abigail.** Wife of the farmer Nabal (1 Sam. xxv. 3, 14-38); later wife of David (xxv. 39-42).
- Abraham (Abram).** Patriarch. Eldest son of Terah of Ur, Mesopotamia; married Sarah (Gen. xi. 26-31); came to Canaan (xii. 1-7); God's Covenant (xvii. 1-22). Isaac born (xxi. 1-8); sacrifice of Isaac (xxii. 1-14). Because he 'believed God' (Rom. iv. 3) he became the ancestor of the Chosen People.
- Absalom.** Third son of David; rebelled against his father (2 Sam. xiii, xiv); hanged by his hair from a tree (xviii. 9-17). David mourned his son (xviii. 33).
- Adam.** First Man (Gen. i-iii). *See also* Vol. I. HEBREW MYTHS.
- Agag.** Amalekite king, hewn to pieces by Samuel (1 Sam. xv. 8-33).
- Ahab.** Seventh king of Israel (the Northern Kingdom). Married JEZEBEL, Phoenician princess, and was led into idolatries (1 Kings xvi. 28-34, xxi. 25-26). Killed in battle with Syrians (xx. 35). *See also* NABOTH.
- Ahasuerus (Xerxes).** King of Persia (485-465 B.C.) *See* ESTHER. *See also* Vol. V. XERXES.
- Ahaz.** King of Judah (2 Kings xvi; Isa. vii). Denounced for following Assyrian religious cults.
- Ahitophel (Achitophel).** Counsellor of David who traitorously supported ABSALOM and finally hanged himself (2 Sam. xvi. 15-xvii. 23).
- Amalekites.** Warlike, nomadic people who lived between Judah and Egyptian frontier and peninsula of Sinai (Exod. xvii. 8-16; Num. xiii. 29, xiv. 43-45).
- Ammonites.** Semitic peoples, living north-east of Dead Sea, who repeatedly attacked Israelites (Num. xxi. 24; Judith xi. 19-22).
- Amorites.** One of the chief Semitic peoples of Canaan and Transjordan, dispossessed by Israelites (Num. xiii. 29).
- Amos.** A Judæan shepherd-prophet of Tekoa, c. 750 B.C. (Amos i. 1, &c.).
- Ananias (Hananiah).** *See* SHADRACH.
- Andrew.** Son of Jonas; native of Bethsaida; lived in Capernaum. Brought his brother, Simon Peter, to Jesus (John i. 40-42); both afterwards called by Jesus (Matt. iv. 18-20), and became apostles (x. 2). Andrew traditionally martyred in Achaëa on the X-shaped cross named after him.
- Anna.** Prophetess who foretold Jesus' work (Luke ii. 36-38).
- Annas.** High priest, appointed in A.D. 6 and replaced by his son-in-law CAIAPHAS in A.D. 15. Examined Jesus (John xviii. 13-24), and Peter and John (Acts iv. 6-13).
- Antioch.** Capital of Syria under Greek and Roman rule. First Christian Church formed there (Acts xi. 26).
- Apocrypha.** Collection of books concerned with history, wisdom, and folklore of Hebrews, placed between Old and New Testament. They are 1 and 2 Esdras, Tobit, Judith, Esther (part), Wisdom of Solomon, Ecclesiasticus, Baruch (with Epistle of Jeremy), Song of the Three Holy Children, Susanna, Bel and the Dragon, Prayer of Manasses, 1 and 2 Maccabees. *See also* Vol. I, p. 421.

Apollos. Learned Jew of Alexandria, instructed by AQUILA and PRISCILLA (Acts xviii. 24-28), went to Corinth (xix. 1-6) and worked with PAUL (1 Cor. i. 12).

Apollyon. Greek equivalent of ABADDON (Rev. ix. 11).

Apostles. Twelve chosen disciples of Jesus (Mark iii. 14-19).

Aquila and Priscilla. Jews of Pontus; accompanied PAUL to Ephesus, where their house became a resort for Christians (Acts xviii; 2 Tim. iv. 19).

Ararat. 1. (Assyrian and modern name 'Urartu'.) A country corresponding roughly to eastern Armenia, and established as a kingdom about 840 B.C. (Jer. li. 27).

2. A mountain in S. Armenia where Noah's Ark was supposed to have rested (Gen. viii. 4).

Areopagus ('Mars' hill'). Place in Athens and court of city fathers which decided questions concerning religion, capital offences, &c. (Acts xvii. 19).

Arimathaea. See JOSEPH of Arimathaea.

Armageddon. Greek form of Mt. of Megiddo. Used symbolically as the scene of final conflict between forces of good and evil (Rev. xvi. 16).

Artaxerxes. Persian kings of 464-424 B.C. and 405-359 B.C.; they favoured the Jews who were then subject to them (Neh. ii. 1; Ezra iv. 7).

Asher. Son of JACOB and Zilpah (Gen. xxx. 12-13) and ancestor of tribe of Asher who dwelt in fertile plain between Carmel and Lebanon (Joshua xix. 24-31).

Ashkelon (Askelon, Ascalon). Ancient coastal Philistine city, 12 miles north of Gaza. Its name was associated with various prophecies and proverbs (Jer. xlvii. 7; 2 Sam. i. 20; Zech. ix. 5).

Ashtoreth. Phoenician and Canaanite goddess, the consort of BAAL, and the counterpart of Venus. Worshipped at Ashkelon (1 Kings ix. 33).

Athaliah. Daughter of King AHAB and JEZEBEL and mother of Ahaziah King of Judah. She usurped the throne in 841 B.C., but 6 years later was slain by the orders of the priest Jehoida (2 Kings xi. 1-20). Subject of Racine's play *Athalie* (See Vol. V, p. 378).

Azarias. See ABED-NEGO.

Baal (plur. Baalim). God of the Canaanites, Philistines, &c. Regarded as source of gifts of nature, who had to be bribed with sacrifices, occasionally human ones (Jer. xix. 4, 5; 1 Kings xviii, &c.).

Babel. Place in land of Shinar (Babylon) where men built a city and a tower to 'reach unto heaven'. To prevent their becoming too powerful, the Lord made them unable to understand one another's speech (Gen. xi. 1-9).

Balaam. A famous soothsayer (Joshua xiii. 22), who was hired by Balak to curse the invading Israelites. At God's orders he uttered blessings instead of curses (Num. xxii-xxiv).

Balak. A king of Moab. See BALAAM.

Baptist, John the. Son of ZACHARIAS, born about 5 B.C.; last of the Hebrew prophets, and forerunner of Jesus. He announced the coming of Messiah (Luke iii. 2-17),

and later baptized Jesus (Mark i. 9-11). Beheaded about A.D. 30 by HEROD ANTIPAS at the request of Salome (Matt. xiv. 1-12).

Barabbas. A notorious robber and murderer, who was released instead of Jesus by Pilate at the demand of the Jewish mob (Matt. xxvii. 16-21, 26).

Barnabas. A disciple of Jesus who introduced PAUL, after his conversion, to the apostles at Jerusalem (Acts ix. 27). He accompanied Paul on his first missionary journey (xiii-xiv), and journeyed later to Cyprus (xv. 39).

Bartholomew. One of the twelve apostles (Luke vi. 14).

Bartimaeus. A blind beggar of Jericho, whom Jesus healed (Mark x. 46-52).

Bathsheba. Wife of Uriah the Hittite; beloved by DAVID, who had Uriah sent to the forefront of the battle where he was killed (2 Sam. xi. 2-27). The prophet NATHAN rebuked David (xii. 1-14). Bathsheba's son died (xii. 15-23). Bathsheba bore SOLOMON (xii. 24).

Beelzebub. The prince of evil spirits (Matt. xii. 24).

Beersheba. An ancient Canaanite city and an important holy place, where ABRAHAM dug a well (Gen. xxi. 30, 31). It stood on the borders of the 'wilderness' and was considered the southern limit of the Holy Land (1 Kings iv. 25).

Belial. 1. The prince of evil; Satan (2 Cor. vi. 15).

2. Man, son, &c., of Belial means a worthless, ungodly, or wicked person (Judges xix. 22).

Belshazzar. According to DANIEL, he was son of Nebuchadnezzar and King of Babylon (Dan. v). In fact, he was son of King Nabonidus, and was killed fighting against Cyrus in 538 B.C.

Ben-Hur. A commissariat officer under SOLOMON (1 Kings iv. 8).

Benjamin. Youngest and favourite son of JACOB (Gen. xlii, xliii). Ancestor of the tribe of Benjamin, of which SAUL and St. PAUL claimed membership (1 Sam. ix. 21; Phil. iii. 5).

Bethany. Village east of the Mount of Olives; the home of Martha, Mary, and Lazarus (John xi. 1). Place of the Ascension (Luke xxiv. 50-51).

Bethel. Town about 12 miles north of Jerusalem, where JACOB consecrated a pillar after his dream of the ladder (Gen. xxviii. 18-22). An ancient holy place where JEROBOAM I set up a royal sanctuary (2 Kings xii. 26-33).

Bethesda. The pool or bath at Jerusalem, where cures were supposed to take place (John v. 2-4).

Bethsaida. A small fishing town on the Sea of GALILEE, birthplace of Peter, Andrew, and Philip (John i. 44). Jesus performed miracles there (Mark vi. 45-55; Luke ix. 10-17), and later denounced it for lack of belief (Luke x. 13).

Bethlehem. A town about 5 miles south of Jerusalem, where David lived (1 Sam. xvii. 12) and was anointed by SAMUEL (xvi. 4-13). Birthplace of Jesus (Luke ii. 4-7), and scene of the slaughter of the infants at HEROD's order (Matt. ii. 16).

Boanerges. A name meaning 'The sons of Thunder', given by Jesus to JAMES and JOHN, the sons of Zebedee (Mark iii. 17).

Caesar. Family name of the Roman emperors, to whom the Jews, as subjects, paid taxes and could make appeals (Luke xx. 22-25; Acts xxv. 11).

Caesarea. A seaport built by HEROD the Great, where PAUL was examined and imprisoned (Acts xxiii. 33, xxiv, xxv).

Caesarea Philippi. Capital of the domain of Philip the tetrarch in north of Palestine. Jesus retired there with his disciples and was there recognized as the Messiah by Peter (Matt. xvi. 13-20).

Caiaphas. The high priest who presided at the trial of Jesus (John xviii. 13-24).

Cain. Eldest son of Adam, who killed his brother Abel through jealousy and was then condemned to be a fugitive (Gen. iv. 1-16).

Calvary. Latin word for skull (Luke xxiii. 33). *See* GOLGOTHA.

Canaan. The Promised Land (Palestine) to which the Israelites journeyed from Egypt (Num. xiii. 2, 17-33). *See also* Vol. III. PALESTINE.

Capernaum. A fishing town NNW. of the Sea of GALILEE, home of Peter (Luke iv. 30-39) and for a time of Jesus (Matt. iv. 13), where many miracles were performed (Mark i. 21-28; John iv. 46-54).

Carmel. A mountain ridge where the priests of BAAL were confounded by ELIJAH (1 Kings xviii. 19-42).

Cephas. A surname, signifying 'a rock', given by Jesus to the apostle PETER (John i. 42).

Cilicia. A maritime province in south-east Anatolia, whose capital, Tarsus, was the birthplace and home of Paul (Acts xxi. 39). In this province he preached after his conversion (Gal. i. 21; Acts xv. 41).

Claudius. Tiberius Claudius, Roman Emperor, A.D. 41-54, who expelled all Jews from Rome (Acts xviii. 2).

Colossians. Inhabitants of Colossae, a city near Ephesus; recipients of St. Paul's Epistle.

Corinthians. Inhabitants of Corinth, chief city of Greece in Roman times, to whom St. Paul wrote an Epistle.

Cornelius. A Roman centurion converted through a vision and baptized (Acts x. 1-31).

Cyrus. King of the Medes and Persians, founder of their empire. On conquering Babylon (538 B.C.) he freed the Jewish exiles there (Ezra i; Isa. xlv. 1-4). *See also* Vol. V, p. 116.

Dagon. A chief god of the Philistines (Judges xvi. 23-24; 1 Sam. v. 2-7).

Damascus. An ancient city (*See* Vol. III, p. 120) of the Syrians (Arameans), temporarily held by DAVID (2 Sam. viii. 6), but afterwards the seat of a rival kingdom, often at war with Solomon (1 Kings xi. 23-25) and with later Kings of Judah (2 Kings xvi. 5-16). PAUL began his ministry there (Acts ix. 19-22).

Daniel. Jewish hero, supposed to have lived during period of captivity in Babylon. An interpreter of dreams (Dan. ii. 19-45, v. 11-31). Cast by DARIUS into the den of lions because he obeyed God, not the king (vi. 7-24).

Darius. King of Medes and Persians (522-486 B.C.) in whose reign was begun the Temple at Jerusalem (Ezra v. 6, vi. 15) and HAGGAI and ZECHARIAH prophesied (Hag. i. 1; Zech. i. 1). Later thought to have been the conqueror of Babylon (Dan. v. 31). *See also* Vol. V, p. 123.

David. Son of Jesse, anointed by SAMUEL as future King of Israel (1 Sam. xvi); served SAUL (xvi. 17-23), and slew the Philistine GOLIATH (xvii. 23-54); was beloved by Saul's son JONATHAN (xviii. 1-4). Saul became jealous (xviii. 6-9) and tried to kill David, who escaped (xix. 10, xx, xxi). When Saul and Jonathan were killed in battle (xxx. 6), David became king (2 Sam. ii. 4). Reputed author of the Psalms. *See also* ABSALOM, AHITOPHEL, SOLOMON. *See also* Vol. V, p. 124.

Delilah. *See* SAMSON.

Diana (of the Ephesians). Nature goddess, worshipped at Ephesus, for whom Demetrius and the silversmiths made shrines (Acts xix. 24-41).

Didymus. *See* THOMAS.

Dorcas. A female convert, also called Tabitha, who was 'full of good works'. She was raised from the dead by PETER (Acts ix. 36-42).

Edomites. Nomadic tribe living to south of the Israelites in Palestine (Num. xxi. 4).

Eli. Priest of the sanctuary of Shiloh (1 Sam. i. 9) who brought up SAMUEL (i. 24-28).

Elijah (Elias). Hebrew prophet, who prophesied drought and famine because of Ahab's worship of Baal (1 Kings xvii. 1). He performed miracles (xvii. 17-24, xviii. 19-46), and at his death was taken up to heaven in a fiery chariot (2 Kings ii. 11).

Elisabeth. Wife of ZACHARIAS and mother of John the BAPTIST; cousin of the Virgin Mary (Luke i. 5-60).

Elisha. Servant and successor of ELIJAH (1 Kings xix 16-21). He received the power of Elijah (2 Kings ii. 9-25). He cured NAAMAN the leper (2 Kings v. 1-14), and performed other miracles.

Emmanuel. *See* IMMANUEL.

Emmaus. A place about 6 miles north-west of Jerusalem on the road to which Christ appeared to the disciples after the Resurrection (Luke xxiv. 13-53).

En-Dor. A town near Mt. Tabor, famous for its witch, whom SAUL visited in disguise (1 Sam. xxviii. 7-25).

Enoch. 1. Eldest son of CAIN, who named a city after him (Gen. iv. 17-18).

2. Patriarch and father of METHUSELAH (Gen. v. 18-22), said to have been 'translated' to heaven (Heb. xi. 5).

Ephesus. Chief city of the Roman Province of Asia, where PAUL taught (Acts xix. 1) and founded a church (Rev. i. 11), and to whose people he addressed an epistle, written about A.D. 63.

Ephraim. Second son of JOSEPH (Gen. xli. 52), to whom JACOB gave preference over his elder brother MANASSEH (xlviii. 14-20). Founder of one of the strongest tribes of Israel, who settled in central Palestine.

Esau. Eldest son of ISAAC and REBEKAH (Gen. xxv. 25). He sold his birthright to his brother JACOB (xxv. 29–34). Ancestor of the tribe of Edom.

Esdra. Greek form of EZRA. In the APOCRYPHA are two books of this name.

Esther. A Jewish girl, cousin of Mordecai, taken to wife by AHAUERUS (Esther ii. 7–20). She twice saved the king's life by revealing plots against him (ii. 21–23, iii–vii), and she prevented a massacre of the Jews (vii–viii).

Eve. The first woman, wife of ADAM (Gen. ii. 21–25). Deceived by the serpent, she led Adam into sin (iii).

Ezekiel. Hebrew prophet of the period of the Exile in Babylon who declared inevitability of God's judgement on Jerusalem (Ezek. ii) but foretold eventual restoration (xxxvii. 1–28, &c.). *See also* Vol. I, p. 386.

Ezra. A priest, leader of a party of Jews who returned from Babylon to Jerusalem after the Exile (Ezra vi–x; Neh. viii). *See also* ESDRAS.

Felix. Procurator of Judaea, A.D. 52–56, before whom PAUL defended himself (Acts xxiii. 24–33).

Festus. Procurator after FELIX (A.D. 56–62) who allowed PAUL's appeal to Caesar (Acts xxv).

Gabriel. The archangel who revealed God's will to DANIEL (Dan. viii. 16), ZACHARIAS (Luke i. 19), and MARY (Luke i. 26). *See also* Vol. I, p. 25.

Gad. Son of JACOB and ancestor of the tribe of Gad living East of the Jordan (Gen. xxx. 11).

Gadarenes (Gergesenes). The people of Gadara, 7 miles south-east of the Sea of GALILEE (Matt. viii. 28–34; Luke viii. 26).

Galatians. People of Roman province of Galatia, in central Asia Minor (Anatolia), to whom PAUL addressed an Epistle about A.D. 55.

Galilee. Region in N. Palestine of which HEROD ANTIPAS became king in 4 B.C. It includes NAZARETH, Cana, CAPERNAUM, and the Sea of Galilee or Lake of Gennesaret (Luke v. 1).

Gallio. Roman magistrate before whom St. Paul appeared; he 'cared for none of these things' (Acts xviii. 12–17).

Samaiel. A Jewish rabbi who was PAUL's instructor (Acts xxii. 3) and who interceded on behalf of PETER and other apostles (v. 34–39).

Gath. One of the chief cities of the PHILISTINES (1 Sam. vi. 17). *See also* ASHKELON.

Gaza. Ancient walled city marking the south-western limit of Canaan (Gen. x. 19), where SAMSON met his death (Judges xvi. 21–30).

Gehazi. Servant of ELISHA who tried to deceive him (2 Kings v. 20–27).

Gehenna (Tophet). A valley where children were sacrificed to the Canaanite deity Moloch (or Baal) (Jer. xix. 5–6) and where carcasses and rubbish were burnt. In N.T. it is used to mean the entrance to Hell.

Gennesaret. *See* GALILEE.

Gentile. A member of any nation other than Israel.

Gethsemane. Garden of. An olive orchard on the west of the Mount of Olives, and scene of Jesus's agony (Matt. xxvi. 36).

Gideon. Leader of Israel against the Midianites (Judges vi. 11–40, vii, viii). He refused the kingship.

Gilead. Land of the Ishmaelites (Gen. xxxvii. 25) from which came spices and balm (Jer. viii. 22).

Gog. A prince of Asia Minor, with Magog personifying the enemies of God's people (Ezek. xxxviii 2–18).

Golgotha. 'The place of a skull', a rocky hill outside Jerusalem, so called from its shape. Jesus was crucified there (Matt. xxvii. 33).

Goliath. A Philistine giant of Gath (1 Sam. xvii. 4–27) who was slain by David (xvii. 50).

Gomorrhah. *See* SODOM.

Habakkuk. Minor Hebrew prophet, reputed author of book of prophecies dating from 609–597 B.C. (Hab. i–iii).

Hagar. The Egyptian handmaid of SARAH (Gen. xvi. 3) and the mother of ISHMAEL (xvi. 15).

Haggai. Prophet who inspired Judah with fresh enthusiasm for rebuilding the temple (Ezra v. 1). Reputed author of book of prophecies dated c. 520 B.C.

Ham. Second son of NOAH (Gen. v. 32), considered as ancestor of southern peoples. 'Land of Ham' is Egypt (Ps. lxxviii. 51).

Hebrew. Name given to the Israelites, at first by foreigners (Gen. xliii. 32), and their language (Acts xxii. 2).

Hebrews. Epistle to. Authorship unknown; probably written fairly soon after St. Paul's death. So called because written to people well-versed in the Old Testament.

Herod. 1. Herod the Great, son of Antipater, King of Judaea from 37 B.C. to his death in 4 B.C. Responsible for massacre of Holy Innocents (Matt. ii).

2. Herod Antipas, son of Herod the Great. Rebuked by John (*See* BAPTIST) whom he beheaded (Matt. xiv. 1–11). Pilate sent Jesus to him for trial (Luke xxiii. 7–15). Exiled by Rome A.D. 39.

3. Herod Agrippa I, grandson of Herod the Great, persecuted JAMES and PETER (Acts xii. 1–12). Died A.D. 42 (xii. 23).

4. Herod Agrippa II, son of Agrippa I, examined PAUL at Caesarea and would have released him (Acts xxv. 13–xxvi. 32).

Herodias. Wife first of PHILIP and then of his half-brother HEROD ANTIPAS, and mother of SALOME (Matt. xiv. 1–6).

Hezekiah. Son of AHAZ, whom he succeeded as King of Judah about 714 B.C. (2 Kings xvi. 20). He re-established worship of Jehovah in the temple (2 Chron. xxix. 3–11), and waged war against the Philistines and the Assyrians (2 Kings xviii. 7, 8). Died c. 686 B.C.

Holofernes. *See* JUDITH.

Hosea. First of the minor prophets, prophesied from c. 750 to c. 735 B.C. His book denounces Israel for idolatry, and other sins.

Ichabod. Grandson of ELI. His name, meaning 'The glory is departed', was bestowed on him at birth by his dying mother (1 Sam. iv. 21).

Immanuel (Emmanuel). A name, meaning 'God with us' used by Isaiah (vii. 14) in his prophecy of the son to be born of a virgin. Later applied to Jesus (Matt. i. 23).

Isaac. Son of ABRAHAM and SARAH in their old age (Gen. xvii. 16–19), and father of JACOB and ESAU (Gen. xxv. 21–26). Revered by the Hebrews as an example of faith (Heb. xi. 20) and the receiver of divine promises (Gen. xxvi. 2–3).

Isaiah. Prophet of JUDAH called to his task about 740 B.C. by a vision in the temple (Isa. vi). He encouraged HEZEKIAH not to fear the Assyrians, and foresaw the deliverance of Jerusalem from them (2 Kings xix–xx). Isaiah xli–lxvi contains writings of an unknown prophet, often called the 'second Isaiah', who lived in the time of the Exile. *See also* Vol. V, p. 239.

Ishmael. Son of ABRAHAM and HAGAR (Gen. xvi. 15–16), who was cast out into the desert through Sarah's jealousy (xxi. 14–16). He had twelve sons (xxv. 12–17), and is regarded by the Arabs as their ancestor.

Israel. 1. A name meaning 'God fighteth', given to JACOB and thus to his sons and descendants—the twelve tribes of Israel (Gen. xxxii. 28; xxxv. 10).

2. The Northern Kingdom consisting of ten tribes, which broke away after Solomon's death and were conquered and dispersed by the Assyrians in 732 B.C. (1 Kings xii. 1–2; 2 Kings xvii. 1–23).

Israelite. One of the 'children of Israel', a member of the Hebrew or Jewish people.

Jacob (Israel). Son of ISAAC and REBEKAH. He won his elder brother ESAU's birthright and Isaac's chief blessing by tricks (Gen. xxv. 23–34, xxvii). He married first LEAH, Laban's daughter, and then her younger sister RACHEL (xxix. 15–30). He had the vision at BETHEL of the ladder from heaven to earth, and erected there an altar (xxviii. 12–19). He is regarded as the father of the Jewish people (John iv. 12), and his twelve sons were the originators of the twelve tribes (Gen. xlix).

Jael. Wife of Heber the Kenite. She killed Sisera, a Canaanite commander, when he had sought shelter in her tent (Judges iv. 17–24).

Jahveh. *See* JEHOVAH.

James. 1. A fisherman and son of ZEBEDEE and SALOME. He was called with his brother JOHN to follow Jesus (Matt. iv. 21–22), and became one of the twelve apostles. He witnessed the Transfiguration (xvii. 1) and the agony of GETHSEMANE (xxvi. 37). He was martyred by HEROD Agrippa I about A.D. 44 (Acts xii. 2).

2. 'The Lord's brother' (Mark vi. 3; Gal. i. 19). After Jesus's death he joined with the Apostles (Acts i. 13–14) and became one of the elders of the church (xxi. 18). Martyred A.D. 63. He is known as James the Just and is the reputed author of the Epistle of James.

3. Son of Alphaeus and MARY and one of the twelve Apostles (Mark iii. 18). Sometimes considered the same as James (2); he is then called 'James the Less', James (1) being 'the Great'.

Japheth. Son of NOAH (Gen. ix. 18), and reputed ancestor of northern peoples.

Jehoshaphat. Son and successor of Asa, King of Judah c. 875 B.C. (1 Kings xv. 24). He strove to abolish idolatry (2 Chron. xvii. 6) and ruled wisely for 25 years (xx. 31).

Jehovah (Jahve(h) or Yahve(h)). The Hebrew name for God, their supreme ruler, which was told to MOSES (Exod. vi. 3). *See also* Vol. I, p. 270.

Jehu. Grandson of Nimshi, called by Elisha to wreak vengeance for worship of BAAL in Israel (2 Kings ix), and was anointed king. He slew Ahaziah and JEZEBEL (ix. 27–37) and the seventy sons of AHAB and the priests of Baal (x. 1–28).

Jephthah. Son of Gilead and a 'mighty man of valour'. He defended the Israelites from the Ammonites (Judges xi. 1). He sacrificed his only daughter to God in fulfilment of a vow (xi. 30–40). He ruled Israel for 6 years (xii. 7).

Jeremiah. Prophet who fearlessly foretold the destruction of Jerusalem and the captivity of Israel, 608–586 B.C. (Jer. i). He was persecuted for his gloomy prophecies (xx. 1–3, xxvi. 8–11, &c.) and eventually taken prisoner to Egypt (xliii. 5–7).

Jericho. An important double-walled city in the Jordan valley. It was captured by the Israelites under JOSHUA (Joshua vi. 1–21).

Jeroboam. 1. Jeroboam I rebelled against SOLOMON and, after his death, united the ten northern tribes into a kingdom of Israel in 936 B.C. (1 Kings xii. 1–20). He established calf worship (xii. 28–33) and was punished for his apostasy (xiii. 4; xiv. 7–18).

2. Jeroboam II succeeded his father, Jehoash, in 788 B.C. as King of Israel. He ruled for 41 years and raised the nation to great prosperity but led it into sin (2 Kings xiv. 23–27).

Jesse. Father of DAVID (1 Sam. xvi. 11–13).

Jews. The people of JUDAH (with BENJAMIN) who went into exile in Babylon and returned when the rest of ISRAEL were scattered. Hence from this time all known Israelites were called 'Jews' and their country JUDAEA.

Jezebel. Phoenician princess, wife of AHAB (1 Kings xvi. 31) and mother of ATHALIAH, Ahaziah, and Joram. She was condemned by ELIJAH for worshipping BAAL (xviii. 4, 13–19), caused the death of NABOTH (xxi), and was herself destroyed by JEHU (2 Kings ix. 30–37).

Joanna. Wife of Chuza, Herod's steward. She was healed by Jesus (Luke viii. 2–3) and was one of the women to anoint Jesus' body (xxiv. 10).

Job. A wealthy and God-fearing man of the land of Uz, hero of the book of Job. God brought all kinds of afflictions on him to test his faith (Job i–ii). His friends tried to comfort him. He kept his faith in God and was finally rewarded (xlii. 7–17). The Book of Job dates from about 400 B.C.

Joel. Minor prophet of uncertain date who foretold the gift of God's Spirit to men (Joel ii. 28–32).

John. A fisherman, son of ZEBEDEE and SALOME. Called with his brother JAMES to follow Jesus (Matt. iv. 21–22). The 'disciple whom Jesus loved' (John xiii. 23), and one of the three disciples closest to their master (Matt. xvii. 1). The only disciple present at the Crucifixion (John xix. 26–27). He was PETER's colleague on many

occasions (Acts iii. 1-11; Luke xxii. 8). He is the reputed author of the Fourth Gospel. The writer of the Epistles is called 'the Elder' and was perhaps John in his old age. The writer of the Revelations, called 'John' (Rev. i. 1, 9), is thought to be the Apostle. *See also* BAPTIST, John the, and MARK, John.

Jonah. A prophet who, when bidden to go and preach against sinful NINEVEH, fled by ship, and was thrown overboard and swallowed by 'a great fish'. After three days it cast him up, and he went to Nineveh as commanded (Jonah I, ii, iii).

Jonathan. Son of SAUL and friend of DAVID (1 Sam. xviii. 1-4). He defeated the Philistines in several battles (xiii. 2-3, xiv), and his death (xxxi. 2) was deeply lamented by David (2 Sam. i. 17-27).

Joppa. Jaffa, the principal seaport of JUDAEA.

Jordan. The only important river of Palestine (*See* Vol. III, p. 247). Its waters were divided to let the Israelites pass into the promised land (Joshua iii). John the BAPTIST baptized in the Jordan (Matt. iii. 5-17).

Joseph. 1. Eleventh son of JACOB (Gen. xxx. 22-25). He was sold by his jealous brothers into Egypt (xxxvii. 3-36), where because of his power to interpret Pharaoh's dreams he became a high official (xli. 1-57). During a severe famine Joseph's brothers came to Egypt to buy corn, and eventually settled there (xlii-xlvii). His sons EPHRAIM and MANASSEH were blessed by Jacob (xlviii. 8-20).

2. A carpenter of NAZARETH, descendant of DAVID and husband of MARY (Luke i. 27; Matt. i. 18-25). He was warned in dream to escape the persecution of HEROD (Matt. ii. 13-15) and then to return to Nazareth (ii. 19-23).

3. Joseph of Arimathaea, a wealthy Jew and a member of the SANHEDRIN. With NICODEMUS, he obtained the body of Jesus, and laid it in his own sepulchre (John xix. 38-42; Mark xv. 43-47).

Joshua. Son of NUN (Num. xiii. 16), assistant of MOSES (Exod. xxiv. 13), and his successor (Num. xxvii. 18-23). He led the Israelites across JORDAN (Joshua iii, iv), and won many victories including the conquest of JERICHO (Joshua vi). Before his death he renewed Israel's covenant with God (Joshua xxiv).

Josiah. He succeeded his father Amon as King of JUDAH in 639 B.C. at the age of 8 (2 Kings xxii. 1). He suppressed idolatry (2 Kings xxii, xxiii) and was killed in battle against the Egyptians (2 Chron. xxxv. 20-24).

Judah. Fourth son of JACOB (Gen. xxix. 35), and ancestor of the tribe of Judah. Raised to the position of leader by Jacob (xlix. 8-12). The tribe of Judah under DAVID (c. 1010 B.C.) dominated the rest of the HEBREWS, who eventually split into a northern kingdom, ISRAEL, and a southern JUDAH. *See also* JUDAEA.

Judas. 1. Maccabaeus. Leader of the Maccabean revolt against Syria, 166 B.C. He captured Jerusalem and reconsecrated the temple (1 Macc. ii. 66-viii. 22). He rescued many sacred writings from destruction (2 Macc. ii. 14-15).

2. Iscariot. Son of Simon (John vi. 71) and an Apostle. He betrayed Jesus for thirty pieces of silver at GETHSEMANE (Matt. xxvi. 14-16, 36, 47-49) and afterwards hanged himself (xxvii. 5).

3. *See* THADDAEUS (John xiv. 22).

4. *See* JUDE.

Jude. One of Jesus's brethren (Matt. xiii. 55); author of Epistle of Jude; sometimes considered the same as JUDAS (3).

Judaea. 1. The kingdom of JUDAH (Ezra v. 8).

2. The southern part of Palestine, or more generally the whole of it, as the ancestral land of the Jews (Luke vii. 17).

Judith. Heroine of Apocryphal book of Judith. When the Jews in her city, Bethulia, were besieged by the heathen general Holofernes, she went to his tent, gained his confidence, and then slew him in his sleep (Judith ii-xvi). The story was probably written in the period of the MACCABEES.

Kedar. Son of ISHMAEL (Gen. xxv. 13) and ancestor of the tribe of Kedar, which was famous for archery (Isa. xxi. 17) and for its villages of black tents (Song of Sol. i. 5).

Kidron (Cedron). A brook separating Jerusalem from Mount Olivet (John xviii. 1).

Laban. Father of LEAH and RACHEL. He was crafty and avaricious but was outwitted by Jacob (Gen. xxx. 31-43).

Laodicea. An important wealthy city in Phrygia, where an early Christian church was established (Col. iv. 13-16). Accused of being 'lukewarm, and neither cold nor hot' (Rev. iii. 14-17).

Lazarus. 1. The beggar contrasted in a parable with the rich man (Luke xvi. 19-25).

2. Brother of MARTHA and MARY, who was raised from the dead by Jesus (John xi. 1-44).

Leah. Elder daughter of LABAN, who married JACOB and had seven children (Gen. xxix-xxxv).

Levi. Third son of JACOB and LEAH (Gen. xxix. 34). His descendants were called the tribe of Levi or Levites. This tribe, to which MOSES and AARON belonged, was chosen for priestly duties (Num. xviii. 1-7).

Lot. Son of Haran (Gen. xi. 27) and nephew of ABRAHAM, who had settled near SODOM (xiii. 12). He was warned to leave Sodom before it was destroyed for its wickedness. His wife was turned to a pillar of salt for disobeying God's orders (xix. 12-26).

Lucifer. The day star or morning star and a name for the rebel angel (Isa. xiv. 12).

Luke. Author of the third Gospel and of the Acts of the Apostles. He was a physician (Col. iv. 14). Frequently accompanied PAUL on his journeys (Acts xvi. 10-13, xx. 6-xxi. 17).

Lydia. A woman, 'seller of purple', who was one of St. Paul's converts (Acts xvi. 14).

Maccabees. 1. A family of heroes, including JUDAS MACCABAEUS, who led the armies of JUDAEA, 166-160 B.C. They ruled Judaea till 63 B.C.

2. The last two books of the APOCRYPHA.

Magdalene. See **MARY** (2).

Malachi. Name given to the minor prophet, author of the last book of the O.T., compiled between 516 and 444 B.C.; in Hebrew Malachi means 'My Messenger'.

Manasseh. 1. Elder son of **JOSEPH**, brother of **EPHRAIM** (Gen. xli. 51), and ancestor of the tribe of Manasseh, one of the two chief tribes of the north (Isa. ix. 21).

2. King of **JUDAH** who practised heathen worship (2 Kings xxi).

Mark. Roman name of the author of the second Gospel, whose Hebrew name is John. He worked with **PAUL** (Acts xii. 25) and with **PETER** (1 Pet. v. 13).

Martha. The over-anxious sister of **MARY** and **LAZARUS** of **BETHANY** (Luke x. 38-41).

Mary. 1. The Virgin, mother of Jesus, and a member of the tribe of **JUDAH** (Luke i. 26-56, ii. 1-7). Before his death Jesus gave her into the care of **JOHN** (John xix. 25-7).

2. Mary Magdalene, i.e. 'of Magdala': cured by Jesus and became his devout follower (Luke viii. 2); she was one of the women at the crucifixion (Mark xv. 40). Jesus appeared to her at the sepulchre (John xx. 11-18). Traditionally identified with the woman, a sinner, who anointed Jesus' feet (Luke vii. 36-50).

3. Mary of Bethany, sister of **MARTHA** and **LAZARUS**, who sat at Jesus' feet and was commended by him (Luke x. 38-42). In legend, identified with Mary Magdalene.

4. Wife of Cleophas, mother of James and Joses, one of the women at the Crucifixion and at the sepulchre (John xix. 25; Matt. xxvii. 55-61).

Matthew (Levi). A publican and customs-officer who was called by Jesus (Mark ii. 14) and appointed one of the twelve apostles (Matt. x. 3). He was with the other disciples in the upper room after the Ascension (Acts i. 13). He is the reputed author of the first Gospel.

Matthias. The apostle chosen by lot to fill the place of the traitor **JUDAS** (Acts i. 23-26).

Medes. People of Media, enemies of Babylon (Isa. xliii. 17), and later united with Persia under **CYRUS** (Dan. i. 21).

Meshach. Babylonian name for Mis(h)ael, friend of **DANIEL** (Dan. i. 7, iii. 8-30).

Messiah (Messias). Hebrew word meaning 'Anointed', and translated into Greek as 'Christos'—hence 'Christ'. In the O.T. 'The Lord's Anointed' meant the king of God's people (1 Sam. xxvi. 7-9), and so came to mean the future King who would come to rule in God's name. 'The Lord's Christ' (Luke ii. 26) and 'Messias' (John iv. 25) mean the same.

Methuselah. A Hebrew patriarch who was said to have lived 969 years (Gen. v. 21-27).

Micah. Prophet of **JUDAH** about contemporary with **ISAIAH** (c. 700 B.C.), who denounced the sins of both Judah and Israel and prophesied that Bethlehem would be the birthplace of a future ruler (Mic. v. 2; Matt. ii. 4-6).

Mis(h)ael. See **MESHACH**.

Moses. Son of Hebrew parents in Egypt who, as a baby, was hidden from Pharaoh's destruction of Hebrew children, and found and adopted by Pharaoh's daughter (Exod. ii. 1-10). God spoke to him from the Burning

Bush, commanding him to lead the Israelites out of Egypt (iii. 2-iv. 17). The 12 plagues and the institution of the Passover (vii-xii). Moses led the Israelites across the Red Sea and ruled them in the Wilderness (xiii. 17-xix). God gave Moses the Law (xx). Moses died before entering the Promised Land (Deut. xxxiv. 5-12).

Naaman. A Syrian noble, cured of leprosy by **ELISHA** (2 Kings v).

Nabal. A churlish landowner of Carmel, husband of **ABIGAIL** who later married **DAVID** (1 Sam. xxv. 2-38).

Naboth. Owner of a vineyard coveted by **AHAB**. **JEZEBEL** obtained it for Ahab by having Naboth murdered (1 Kings xxi. 1-16).

Naomi. Mother-in-law of Ruth (Ruth i) and kinswoman of Boaz (Ruth ii).

Naphtali. Son of Jacob (Gen. xxx. 7-8) and ancestor of the tribe of Naphtali, living in Galilee (Isa. ix. 1).

Nathan. A prophet in the time of **DAVID** who condemned David's love for **BATHSHEBA** (2 Sam. xii. 1-14), and anointed **SOLOMON** king (1 Kings i. 32-40).

Nathanael. A native of Cana in **GALILEE** (John xxi. 2), brought by Philip to Jesus who said 'Behold an Israelite indeed, in whom is no guile' (John i. 45-51).

Nazareth. The early home of Jesus (Matt. ii. 23) who is often called Jesus of Nazareth (Matt. xxvi. 71; Luke iv. 34).

Nebuchadnezzar. King of Babylon (604-562 B.C.) who subdued **JUDAH** and captured Jerusalem (2 Kings xxiv. 7-14). The king whose dream Daniel interpreted and who set up a golden image to be worshipped (Dan. ii-iii) was not the historical Nebuchadnezzar but a later powerful heathen ruler.

Nehemiah. Cup-bearer to the Persian King **ARTAXERXES** (Neh. i. 11), who obtained the king's favour for the restoration of Jerusalem after the Exile. He wrote much of the Book of Nehemiah.

Nicodemus. A Pharisee who came secretly to Jesus to hear his teaching (John iii. 1-21) and later protested against his unjust trial (vii. 50-52). After the Crucifixion he brought spices for the embalming (xix. 39).

Nimrod. A famous hunter (Gen. x. 8-10). 'The land of Nimrod' means Assyria (Mic. v. 6).

Nineveh. Capital of Assyria, whose destruction c. 612 B.C. by the **MEDES** and **Chaldeans** is foretold in Zeph. ii. 13-15.

Noah. The patriarch who, with his family, was saved in the Ark from the flood (Gen. vi-viii). Afterwards God made a covenant with Noah, of which the sign should always be the rainbow (ix. 8-17).

Nod. The land of Nod, or land of wandering, is a wild mountainous region east of the Tigris (Gen. iv. 16).

Obadiah. 1. **AHAB**'s servant, who saved 150 prophets from **JEZEBEL**'s persecution by hiding them in a cave, and was a messenger between Ahab and **ELIJAH** (1 Kings xviii. 1-16).

2. Minor prophet of O.T. The very short Book of Obadiah dates from the Exile or after.

Olives, Mount of (Mount Olivet). A hill east of Jerusalem (2 Sam. xv. 30; Luke xxi. 37).

Patmos. An island in the Aegean Sea, from which St. JOHN in exile saw the visions of the Revelations (Rev. i. 9).

Paul (Saul of Tarsus). A strict Jew and a Pharisee (Acts xxiii. 6), who persecuted the Christians (vii. 58, viii. 1-4) until he was converted (ix. 1-22). He made three great missionary journeys founding churches in Philippi, Thessalonica, Corinth, &c. He was arrested at Jerusalem in A.D. 56 (xxi. 27-40), brought before the Roman governors, FELIX, FESTUS, and King AGRIPPA (xxiv-xxvi), and was sent to Rome. He was shipwrecked on the way and landed on Melita (Malta) (xxvii-xxviii). He lived in Rome for 2 years. He wrote many Epistles to the Churches or to individuals. *See also* Vol. V, p. 352.

Peter (Simon called Cephas or Peter, i.e. 'Rock'). A fisherman of BETHSAIDA. Brother of ANDREW and leader of the Apostles (Matt. iv. 18-20). To his confession of Jesus as the Christ (Messiah) Jesus replied he would build his Church on this rock (xvi. 16-18). Denied Jesus (xxvi. 69-75). He came early to the sepulchre (John xx. 2-10) and received Jesus' charge (xxi. 15-19). He was the leader of the early church (Acts ii. 14, vi), and settled disputes (xv. 6-11). *See also* Vol. V, p. 358.

Pharaoh. Title of the King of Egypt, meaning 'great house' (Gen. xxxix. 1, xli, &c.).

Pharisees. A section of the Jews who took special pains to keep the Law, both written and unwritten ('tradition of the elders') (Mark vii. 3) and who believed in a resurrection (Acts xxiii. 8).

Philemon. A Christian, probably a native of Colossae, to whom PAUL wrote a short Epistle.

Philip. 1. An apostle, native of BETHSAIDA (John i. 43-44, vi. 5-7).

2. Son of HEROD the Great, first husband of HERODIAS (q.v.).

3. The Tetrarch (Luke iii. 1), son of HEROD the Great, and half-brother of Philip (2).

4. The deacon who preached to the Ethiopian (Acts viii. 26-40) and entertained St. PAUL at Caesarea (xxi. 8).

Philippi. A Macedonian city where PAUL and SILAS founded a church and were imprisoned (Acts xvi. 9-40). Paul wrote an Epistle to the Christians there.

Philistines. Inhabitants of Philistia in South-west Palestine who were frequently at war with the ISRAELITES. Their leader GOLIATH was slain by DAVID (1 Sam. xvii. 4-51), who later had other victories over them (2 Sam. v. 17-25). *See also* Vol. I, p. 361.

Pilate. Pontius Pilate. Procurator of JUDAEA, A.D. 26-36, by whom Jesus was tried. He sought to release Jesus, but, when the crowd demanded it, ordered him to be crucified, washing his hands (Matt. xxvii. 2, 11-26).

Potiphar. One of PHARAOH's officers and master of JOSEPH (Gen. xxxvii. 36).

Priscilla. *See* AQUILA.

Rachel. LABAN's younger daughter loved by JACOB (Gen. xxix. 6-30); mother of JOSEPH (xxx. 23-24) and BENJAMIN (xxxv. 16-18).

Rebekah. Wife of ISAAC (Gen. xxiv) and mother of ESAU and JACOB (xxv. 21-28). She helped Jacob, her favourite, to obtain his father's blessing (xxvii).

Rehoboam. Son of SOLOMON, against whom the northern tribes rebelled after he had threatened to 'chastise them with scorpions' (1 Kings xii. 1-14). They set up a separate kingdom, called ISRAEL, under JEROBOAM (xii. 16-20).

Reuben. Eldest son of JACOB and LEAH (Gen. xxix. 32) and ancestor of the tribe of Reuben, living east of the Jordan, and one of the ten tribes later taken captive by the Assyrians (1 Chron. v. 26).

Rimmon. God of the Assyrians and Babylonians (2 Kings v. 18).

Ruth. A Moabitess, daughter-in-law of NAOMI. She gleaned in the fields of her wealthy kinsman Boaz (Ruth ii) whom she married (iv. 13). Their grandson was JESSE, the father of DAVID.

Sadducees. A priestly sect of the Jews who, unlike the PHARISEES, kept only the written, not the unwritten law; they believed neither in resurrection nor in angels (Mark xii. 18; Acts xxiii. 8).

Salome. 1. Wife of ZEBEDEE, and mother of JAMES and JOHN. She asked for her sons to be placed on either side of Jesus in his kingdom (Matt. xx. 20-21). She was one of the women at the crucifixion (Mark xv. 40-41) and at the sepulchre (xvi. 1).

2. Daughter of HERODIAS (q.v.).

Samaria. 1. City, founded by Omri, as capital of the northern kingdom (Isa. vii. 9); captured 722 B.C. by the Assyrians (2 Kings xvii. 1-6).

2. Territory surrounding this city which, after the Assyrian conquest, was inhabited by people whom the Jews despised as being half heathen (2 Kings xvii. 24-29; John iv. 4-9).

Samson. An Israelite of exceptional strength (Judges xiv. 5-6). The PHILISTINES bribed Delilah to betray him into their hands. They took him blinded and captive to GAZA, but he destroyed both himself and them by a final effort of strength (Judges xvi. 5-31).

Samuel. Son of Elkanah and Hannah (1 Sam. i. 19-20). He served ELI in the temple and heard God's word. He anointed SAUL by God's order as King of ISRAEL (ix. 17, x. 1) and later DAVID (xvi. 13). He judged Israel for many years (xxv. 1).

Sanhedrin. The council of 70 elders, chief priests, and scribes which, in Greek and Roman times, chiefly controlled Palestine in both religious and judicial matters (Mark viii. 31). Its members, assembled by night, judged Jesus worthy of death and handed him over to PILATE (Mark xiv. 55-64, xvi. 1).

Sarah. Wife of ABRAHAM (Gen. xi. 29). She bore her son ISAAC in her old age (xxi. 1-3).

Saul. 1. King of Israel (1 Sam. ix. 15-17). With his son JONATHAN he won victories over the Philistines and

Amalekites (xiv, xv). He planned unsuccessfully to kill David (xviii-xxiv). He was killed at the battle of Mount Gilboa by the Philistines (xxx. 1-13).

2. Earlier name of PAUL the Apostle (Acts xiii. 9).

Sennacherib. King of Assyria, 705-681 B.C. He invaded Judah and threatened even Jerusalem, until his army was mysteriously destroyed (2 Kings xviii. 13-xix. 36). He was killed by his own sons (xix. 37).

Seth. Third son of ADAM and EVE (Gen. iv. 25).

Shadrach. Babylonian name for Hananiah, an Israelite prince taken captive by NEBUCHADNEZZAR (Dan. i. 1-7). He, MESHACH, and ABED-NEGO were cast into a fiery furnace for refusing to worship the Babylonian gods (Dan. iii. 8-30).

Sheba. A wealthy region in south-west Arabia (Isa. ix. 6; Ezek. xxvii. 22). The Queen of Sheba visited SOLOMON (1 Kings xi. 13).

Shem. Eldest son of NOAH (Gen. v. 32), considered as the ancestor of ABRAHAM and therefore of the Israelites and kindred people (Semites).

Sidon. A wealthy Phoenician seaport usually associated with TYRE. Its downfall was prophesied by Ezekiel (Ezek. xxviii. 20-26).

Silas. A Christian prophet sent by the Apostles to join PAUL and BARNABAS (Acts xv. 25-32). He accompanied Paul when Paul and Barnabas separated (xv. 37-41). He was almost certainly the Silvanus of the Epistles (2 Cor. 19).

Siloam. Pool of. A reservoir in Jerusalem. Jesus sent a blind man there to wash and receive his sight (John ix. 1-7).

Simeon. 1. Son of Jacob and Leah (Gen. xxxv. 23) and ancestor of the tribe of Simeon (Joshua xix. 1), living in southern Palestine. The tribe later became unimportant (1 Chron. iv. 27) and practically disappeared.

2. The aged Jew who took the infant Jesus in his arms in the Temple and spoke the *Nunc Dimittis* (Luke ii. 25-35).

3. Either a form of 'Simon' referring to PETER or the same as (2) (Acts xv. 14).

Simon. 1. Zelotes, or 'the Canaanite', one of the twelve apostles (Luke vi. 15).

2. Another name of PETER (Luke vi. 14).

3. A brother of Jesus (Matt. xiii. 55).

4. A leper in whose house at Bethany Jesus was when the woman anointed him with ointment (Matt. xxvi. 6).

5. Simon of Cyrene, the bearer of the Cross (Mark xv. 21).

6. A sorcerer, who tried to buy the gifts of the spirit with money (Acts viii. 9-24); hence the word 'simony'.

Sinai, Mount, also called Mount Horeb. The holy mountain, where MOSES received God's laws and instructions (Exod. iii, xix).

Sisera. See Jael.

Sodom. One of the five wicked cities of the plain (GOMORRAH was another) which were destroyed (Gen. xviii. 20-xix. 25). In the N.T. Sodom is an example of the fate awaiting great wickedness (Matt. xi. 23-24; Rev. xi. 8).

Solomon. Son of DAVID and BATHSHEBA (2 Sam. xii. 24). King of Israel, c. 982-942 B.C. He was famous for his wise judgement (1 Kings iii. 16-28) and for his great wealth (x. 14-23). He built the first Temple (vi-viii). See also Vol. V, p. 420.

Stephen. One of the seven men, often called 'deacons', first appointed to relieve the Apostles of routine tasks (Acts vi. 1-5). He was arrested and accused before the Sanhedrin. He answered boldly, and was stoned to death about A.D. 30 (Acts vi, vii). He was the first Christian martyr.

Straight. A street in Damascus, where PAUL lodged after his conversion (Acts ix. 10-20).

Susanna. A Jewish married woman who is described in the Apocryphal book of Susanna. Her innocence when accused of misconduct was proved by DANIEL.

Tabitha. Another name of DORCAS (q.v.).

Tarsus. Capital city of Cilicia, and birthplace of PAUL (Acts ix. 11), who called it 'no mean city' (xxi. 39).

Thaddaeus. Sometimes called Lebbaeus. He was one of the twelve apostles (Matt. x. 3), and is generally considered the same as JUDAS, not Iscariot, and sometimes as JUDE, brother of James (Jude i).

Theophilus. The man to whom St. Luke addressed his Gospel and the Acts (Luke i. 3; Acts i. 1). Probably a high Roman official.

Thessalonians. Members of the early Christian church in the Macedonian seaport of Thessalonica, to whom St. PAUL addressed two Epistles.

Thomas. One of the twelve apostles (Luke vi. 15), also called Didymus (John xxi. 2). He would not believe in the Resurrection until he saw and touched Jesus for himself (John xix. 19-28).

Tiberias. A city built by HEROD Antipas on the coast of the Sea of Galilee (John vi. 1, 23).

Timothy (Timotheus). Son of a Greek father and Jewish Christian mother who became Paul's companion (Acts xvi. 1-3; 2 Cor. i. 1) and his 'own son in the faith' (1 Tim. i. 2). He was given important tasks in the church. It is doubtful whether the two epistles to Timothy were written by St. Paul.

Tishbite. ELIJAH the Tishbite was a native of Tishbe in N. GILEAD (1 Kings xvii. 1).

Titus. A Gentile (probably Greek) Christian who became PAUL's companion. He was with him at Jerusalem (Gal. ii. 1) and was sent to Corinth (2 Cor. xii. 18). The Epistle to Titus may not be by St. Paul.

Tobias. See TOBIT.

Tobit. He and his son TOBIAS are the heroes of the Apocryphal book Tobit. He becomes blind, and sends Tobias to Media to collect a debt. Tobias is led by an angel through all his difficulties and finally heals his father's blindness.

Tyre. A famous trading city on the Phoenician coast, usually associated with SIDON, whose downfall was prophesied by Ezekiel (Ezek. xxvii-xxviii. 19). It was captured by NEBUCHADNEZZAR (xxix. 17-18), 586 B.C.

Uriah. *See* BATHSHEBA.

Vashti. Wife of AHASUERUS, King of Persia. She was banished and replaced by ESTHER (Esther i. 9–ii. 17).

Zacchaeus. A rich publican (tax collector) of Jericho who climbed a sycamore tree to see Jesus pass by (Luke xix. 1–10).

Zacharias. 1. Father of John BAPTIST (Luke iii. 2).

2. A righteous man, killed by the Jews, mentioned by Jesus (Matt. xxiii. 5; Luke xi. 51), probably the same as Zechariah (2 Chron. xxiv. 20–22).

3. *See* ZECHARIAH.

Zebedee. A fisherman, father of the apostles JAMES and JOHN, husband of SALOME (1) (Mark i. 19–20).

Zebulon. Son of Jacob (Gen. xxx. 19–20) and ancestor of tribe of Zebulon, living in Galilee (Isa. ix. 1).

Zechariah. 1. One of the minor prophets who, with HAGGAI, encouraged the rebuilding of the Temple after the Exile (Zech. i–viii; Ezra v. 1–2).

2. *See* ZACHARIAS (2).

Zephaniah. One of the minor prophets who lived in the reign of JOSIAH (639–610 B.C.).

Zion. The Jebusite stronghold captured by David (2 Sam. v. 6–7); hence used for Jerusalem, the city of David, and God's own city. Later the name came to be used to mean the Christian Church or the kingdom of Heaven (Heb. xii. 22). 'Zionism' is the movement to re-establish the Jewish nation in Palestine.



ST. MATTHEW



ST. MARK



ST. LUKE



ST. JOHN



ST. JOHN BAPTIST

SAINTS

IN the Middle Ages, when few people could read, it was of little use to write the names on the images and paintings of SAINTS (q.v. Vol. I) in churches. Yet people needed to be able to recognize the saints when they saw them; there might be a farmer who wanted St. Cornelius to keep the pest from his cattle, or a woman asking good St. Bride to help her sick child. So each saint carried a special emblem. The Four Evangelists have their books and the Four Beasts mentioned in the Apocalypse; the Apostles usually carry the instruments of their martyrdom, but not always. St. Paul has a book and sword, St. Bartholomew the knife with which he was flayed. St. Peter, however, is generally portrayed with the two keys with which he was entrusted by Our Lord, and the Papal Triple Crown because it is from him that the Popes claim their authority. St. Thomas may carry his carpenter's rule, St. Matthew, the tax collector, his bag of money.

Martyrs usually carry the instruments of their martyrdom, but may also have some other object connected with their lives or special devotions. St. Barbara was martyred with a sword, but she is rarely seen without the tower from which she escaped, and which made her the patroness of builders. St. Cecilia holds the organ which she is said to have invented. St. Catherine is rarely without the wheel on which she was tortured but, undeterred by torments, this queen of philosophers still manages to argue, counting off the points of her disputation on her fingers.

Then there are the saints who were fond of animals: St. Aventinus with his bear, St. Jerome with his lion, St. Giles with his hind. Other saints have emblems representing the qualities for which they were famous. Eloquent men, such as St. Ambrose or St. Bernard of Clairvaux (who was called the honey-sweet doctor),

sometimes carry a beehive, while St. Augustine holds his broken and contrite heart.

Then there are the craftsman saints, such as Eligius the smith, with his hammer or even a horse's leg. Every guild had its patron, as did countries and cities. Patronage is sometimes, but not always, connected with the life or martyrdom of the saint; St. Andrew, a fisherman, is patron of fishermen, St. Joseph, a carpenter, is patron of carpenters.

Only a few of the saints are listed below with their most usual emblems and patronage. There are many others venerated for their teaching, their holy lives, and their martyrdoms; some are well known, others are associated with special places.

AGNES, Virgin Martyr.

Died c. 300. Feast: January 21.

Emblems: A lamb. A sword in her throat.

Patron of betrothed couples, gardeners, and maidens.

AMBROSE, Bishop and Father of the Latin Church.

Died 397. Feast: December 7.

Emblems: Beehive. Scourge and book.

Patron of beekeepers, domestic animals.

ANDREW, Apostle.

Feast: November 30.

Emblems: Transverse cross. Fishing net.

Patron of Scotland, fishermen, and sailors.

ANNE, Mother of the Virgin.

Feast: July 26.

Emblem: Virgin and Child in her lap.

ANSELM, Bishop (Vol. V, p. 14).

Died 1109. Feast: April 21.

Emblem: Ship.

ANTHONY, Abbot.

Died 356. Feast: Jan. 17.

Emblem: T-shaped staff and bell.



ST. ANSELM



ST. ANTHONY



ST. CATHERINE



ST. CHRISTOPHER



ST. CLARE

AUGUSTINE, Bishop and Father of the Latin Church (Vol. V, p. 22).

Died 430. Feast: August 28.

Emblems: Broken or burning heart. Book.
Patron of theologians.

BARBARA, Virgin Martyr.

Died 235. Feast: December 4.

Emblems: Tower. Sword, Chalice and Host.
Patron of builders, firework makers.

BENEDICT, Founder of the Benedictine Order (Vol. V, p. 38).

Died 550. Feast: March 21.

Emblem: Benedictine abbot with broken tray or cup.
Patron of coppersmiths and schoolboys.

BERNARD OF CLAIRVAUX, Founder of the Cistercian Order (Vol. V, p. 41).

Died 1153. Feast: August 20.

Emblem: Monk in white habit adoring the Virgin.
Patron of beekeepers.

BONIFACE, Bishop Martyr.

Died 775. Feast: June 5.

Emblem: Axe in root of tree.
Apostle of Germany.
Patron of brewers and tailors.

BRIDGET OF KILDARE, Abbess.

Died 625. Feast: February 1.

Emblem: A flame or lighted lamp.
Patroness of cattle, dairymaids, fugitives.

CATHERINE, Virgin Martyr.

Died 310. Feast: November 25.

Emblems: Book and wheel.
Patron of philosophers, spinsters.

CECILIA, Virgin Martyr.

2nd-3rd century. Feast: November 22.

Emblem: Organ or viol.
Patron of musicians.

CHRISTOPHER, Martyr.

Legendary. FEAST: July 25.

Emblem: Christ-child on his shoulder.
Patron of sailors, travellers.

CLARE, Abbess.

Died 1253. Feast: August 12.

Emblems: Brown habit with cord round waist. Carrying a monstrance. Founder of Order of Poor Clares.

CLAUDE OF BESANÇON, Bishop.

Died 699. Feast: June 6.

Emblem: A child at his feet, often with a whistle.
Patron of gingerbread sellers, toy-makers.

COLUMBA, Abbot.

Died 597. Feast: June 9.

Emblems: Basket of bread and the orb of the world in a ray of light.
Apostle of Scotland.

CORNELIUS, Pope and Martyr.

Died 252. Feast: September 16.

Emblems: Papal tiara and bull's horn.
Patron of cattle and domestic animals.

CUTHBERT, Bishop.

Died 687. Feast: March 20.

Emblem: The crowned head of St. Oswald.
Patron of shepherds and seafarers.

DAVID, Bishop (Vol. V, p. 128).

Died c. 544. Feast: March 1.

Emblem: Dove on shoulder.
Patron of Wales.

DOMINIC, Founder of the Dominican Order (Vol. V, p. 141).

Died 1221. Feast: August 4.

Emblems: Black and white dog with torch in its mouth.
Star and lily.

DOROTHY, Virgin Martyr.

Died c. 300. Feast: February 6.

Emblems: Christ-child and basket of fruit and flowers.
Patron of brides, gardeners.

DUNSTAN, Bishop.

Died 988. Feast: May 19.

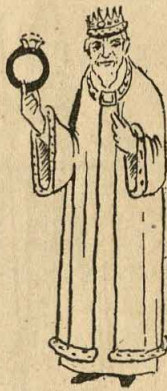
Emblems: Holding his goldsmith's tongs to catch the devil's nose. A host of angels. Patron of blacksmiths, goldsmiths, and the blind.



ST. DOROTHY



ST. DUNSTAN



ST. EDWARD



ST. GEORGE



ST. GILES

EDMUND, King and Martyr.
Died 870. Feast: November 20.
Emblems: Bearded King holding arrow.
Venerated at Bury St. Edmunds.

EDWARD THE CONFESSOR, King.
Died 1066. Feast: October 13.
Emblem: King holding ring or giving it to pilgrim.
Patron of England before St. George.

ELIGIUS (Loi or Eloi), Bishop.
Died 639. Feast: December 1.
Emblems: Anvil and hammer.
Patron of all smiths and metal-workers.

ETHELREDA (AUDREY), Abbess.
Died 679. Feast: June 23.
Emblems: Book and budding staff.
Patron of Cambridge University and Ely.

FRANCIS, Founder of Franciscan Order (Vol. V, p. 168).
Died 1226. Feast: October 4.
Emblems: Brown habit with cord, and the marks of the Crucifixion in his hands, feet, and side.
Patron of animals.

FRIDESWIDE, Abbess.
Died 735. Feast: October 19.
Emblems: Crown and ox.
Patron of Oxford.

GABRIEL, Archangel (of the Annunciation).
Feast: March 24.
Emblem: Lily.
Patron of postmen.

GEORGE, Martyr (Vol. V, p. 188).
Died c. 300. Feast: April 23.
Emblems: Knight with dragon. Red cross on shield or banner.
Patron of England, cavalymen, chivalry, and soldiers.

GILES, Hermit and Abbot.
Died 712. Feast: September 1.
Emblem: Old man with hind.
Patron of beggars, blacksmiths, and cripples.

GREGORY THE GREAT, Pope and Father of the Latin Church (Vol. V, p. 200).
Died 604. Feast: March 12.
Emblem: Pope with dove at his ear.
Patron of musicians.

HUGH OF AVALON (Great St. Hugh of Lincoln), Bishop.
Died 1200. Feast: November 17.
Emblem: Swan.

JEROME, Cardinal and Father of the Latin Church.
Died 420. Feast: September 30.
Emblems: Lion. Cardinal's hat and book.
Patron of students.

JOHN BAPTIST.
Feast: June 24.
Emblems: Clad in skins with cross and lamb.
Patron of farriers and tailors.

JOHN, Evangelist.
Feast: December 27.
Emblems: Book and Eagle. Chalice and serpent.
Patron of booksellers, painters, printers, publishers.

JOSEPH.
Feast: March 19.
Emblem: Carrying Christ-child or leading Him by the hand.
Patron of carpenters, engineers, the family.

JUDE, Apostle.
Feast: October 28.
Emblems: Club or axe.
Invoked in desperate situations.

LAWRENCE, Martyr.
Died 258. Feast: August 10.
Emblem: Deacon with gridiron.
Patron of cooks, cutlers and armourers, schoolboys

LUKE, Evangelist.
Feast: October 18.
Emblems: Book and winged bull. Painting the Virgin's picture.
Patron of doctors, goldsmiths, sculptors.



ST. JEROME



ST. MICHAEL



ST. NICHOLAS



ST. SEBASTIAN



ST. ZITA

MARGARET, Virgin Martyr.

Died 304. Feast: July 20.

Emblem: Dragon.

Patron of women (especially maidens), nurses, and peasants.

MARGARET OF SCOTLAND, Queen.

Died 1093. Feast: June 10.

Emblem: A black cross.

MARK, Evangelist.

Feast: April 25.

Emblems: Book and winged lion.

Patron of Venice, glaziers, and notaries.

MARY MAGDALENE.

Feast: July 22.

Emblems: Long hair and jar of ointment.

MATTHEW, Evangelist.

Feast: September 21.

Emblems: Book and angel. Bag of money.

Patron of bankers and tax collectors.

MICHAEL, Archangel.

Feast: September 29.

Emblems: Sword and scales. Trampling dragon or devil.

Patron of artists and soldiers.

NICHOLAS, Bishop.

Died 350. Feast: December 6.

Emblems: Three balls. Three children in a tub.

Patron of children (Santa Claus), captives.

PATRICK, Bishop (Vol. V, p. 351).

Died 461. Feast: March 17.

Emblems: Bishop with serpents. Shamrock.

Patron of Ireland.

PAUL, Apostle (Vol. V, p. 352).

Died c. 64. Feast: June 30.

Emblems: Sword and book.

Patron of missionaries.

PETER, Apostle (Vol. V, p. 358).

Feast: June 29.

Emblems: Keys and Papal Tiara.

Patron of bakers, butchers, clockmakers.

RAPHAEL, Archangel.

Feast: October 24.

Emblems: Jar of ointment. Fishes' gall.

Healer, guide of souls, patron of Guardian Angels.

SEBASTIAN, Martyr.

Died 288. Feast: January 20.

Emblem: Pierced by arrows, or carrying one.

Patron of armourers, ironmongers, potters.

TERESA OF AVILA (Vol. V, p. 443).

Died 1582. Feast: October 15.

Emblems: Carmelite nun, her heart pierced by Christ or an angel with an arrow.

Invoked by those in need of grace.

THOMAS, Apostle.

Feast: December 21.

Emblems: Carpenter's rule or lance.

Patron of architects, carpenters, geometers.

THOMAS OF CANTERBURY, Bishop Martyr.

Died 1170. Feast: December 29.

Emblems: Sword in his head. Cross bearer by him.

URSULA, Virgin Martyr.

Legendary. Feast: October 21.

Emblem: A princess holding an arrow.

Patron of maidens, drapers, and teachers.

ZITA.

Died 1278. Feast: April 27.

Emblem: Serving maid with key and rosary.

Patron of domestic servants.

GUIDE TO THE CHARACTERS IN GREEK AND ROMAN MYTHOLOGY

MOST early civilizations built up mythological characters and stories in connexion with their religious beliefs and practices (Vol. I, p. 332). The Egyptians (Vol. I, p. 158), the Babylonians (p. 61), the Hebrews (p. 220), the Norsemen (p. 342), the Chinese, Indians, Japanese, and many other peoples did so; but we have the most complete record of the Greek gods and goddesses (p. 200) and the stories which have grown up round them (p. 208). Roman mythology was borrowed largely from the Greek, though it was given a peculiar slant to suit the Roman way of thinking.

Certain characters appear in some form or another in most mythologies. There is nearly always a 'top god', the all-wise ruler of heaven and earth, and often a personification of the sun. This place is held by Zeus (Greek), Jupiter (Roman), Re and later Osiris (Egypt), Marduk (Babylonian), Brahma (India), Wodin or Odin (Norse), and in monotheistic religions by Jehovah (Hebrew), Ahura Mazda (Persia), and Allah (Islam). Beside the principal god is often his queen, the chief goddess—Hera (Greek), Juno (Roman), Isis (Egyptian), and Frigga (Norse). Other common characters are the gods of war—Ares, Mars, Indra (India), Tyr (Norse); gods or goddesses of love, beauty, music, the hearth or home, fire, the messenger of the gods, death and the underworld, as well as characters such as Set (Egypt), the Druj (Persia), and Loki (Norse) who are the workers of evil (Vol. I, p. 428). In almost all mythologies the gods contend against the forces of evil in the shape of giants and monsters of one kind or another (Vol. I, p. 335).

In the list which follows, the principal gods, goddesses, and other characters of both Greek and Roman mythology have been arranged in alphabetical order, with a very short account of what they stood for and the part they played. The Greek and Roman gods corresponded so closely that they were often identified, but they were not really the same. For example, the Greek god of war, Ares, was an unimportant character, little worshipped, compared with the Roman Mars. In general, too, the Romans thought of their gods as abstract powers, while the Greeks gave theirs richly human characters.

Note on Pronunciation

˙	stressed syllable.	-ēus	rhymes with 'juice'.
˘	long vowel	ch	pronounced 'k'.
˙	short vowel	æ, æ	pronounced 'ē'

(The pronunciation shown is the one usual in English; it sometimes misrepresents the original, e.g. English, Ērös; Greek, Ērös.)

Ä'cheron. River of HADES.

Ächi'llēs. Son of Peleus (mortal) and Thetis (divine), and the Greek warrior-hero of Homer's *Iliad*. Thetis tried to make him immortal by dipping him in the STYX, but she did not dip the heel by which she held him. He was killed at the siege of Troy—by an arrow-wound in his heel.

Actae'on. Huntsman, who, when hunting, chanced on ARTEMIS bathing. She turned him into a stag, and he was torn to pieces by his own hounds.

Admē'tus. See ALCESTIS.

Adō'nīs. Beautiful youth, beloved by APHRODITE. After his death the gods of the underworld allowed him to spend 6 months of every year with her on earth.

Aene'as. Trojan hero, son of Anchises (mortal) and APHRODITE (divine). In Virgil's *Aeneid*, after the fall of Troy, he migrated to Italy and became the mythical ancestor of the Romans.

Ae'ölus. Ruler of the winds.

Aescula'pius. Roman name for ASCLEPIUS.

Agamemnon. King of Mycenae and commander-in-chief of the Greeks at the siege of Troy. On his return he was murdered by his wife Clytemnestra.

Ājax. Greek warrior at the siege of Troy, second only to **ACHILLES** in courage. He hoped to inherit Achilles' armour, and when it was given to **ODYSSEUS** he went mad and killed himself.

Alce'stis. Wife of **Admetus**, King of **Pherae**, who had been granted escape from death if somebody else would die for him. She consented to die in his place but was brought back from the dead by **HERACLES**.

Alcý'ōnē. Daughter of **AEOLUS**. She grieved so much for her husband, **Ceyx**, who was drowned that the gods re-united them as birds. She became a kingfisher (*halcyon*). 'Halcyon days' were calm days in mid-winter, supposedly when the halcyon was brooding. **Ceyx** became either a gannet or a tern.

Alphē'ūs. River-god. *See* **ARETHUSA** and **AUGEAN STABLES**.

A'mazons. Mythical race of warlike women, who lived in Asia Minor (*See* Vol. I, p. 5).

Anchī'sēs. Father of **AENEAS**.

Andrō'mächē. Wife of **HECTOR**.

Andrō'meda. Ethiopian princess. She was chained to a rock as victim to a monster which was ravaging her country. **PERSEUS** saved her by turning the monster to stone with the **GORGON's** head; he then married her.

Anti'gōnē. Daughter of **OEDIPUS**. Her brother **Polynices** was killed fighting against their own city **Thebes**, and the king forbade his burial. **Antigone** was buried alive in a cave for defying this order, and there she hanged herself.

Āphrodī'te. Greek goddess of love and beauty. In some accounts she was the daughter of **ZEUS** and the **TITAN** **Dione**; in others she sprang from the foam of the sea. She was judged by **PARIS** to be the most beautiful of the goddesses. Roman equivalent: **Venus**.

Apo'llo. Greek sun god, and god of music and poetry; also worshipped by the Romans. As god of prophecy he had many shrines, the greatest being that of **Delphi**. With his bow and arrows he could both punish men and bring them help, particularly against disease.

Ara'chnē. Maiden who beat **ATHENA** in a weaving contest. **Athena** tore up her work and she hanged herself in despair; the goddess saved her life, but she was turned into a spider.

Ā'rēs. Son of **ZEUS** and **HERA**, and Greek god of war. Disliked by the other gods for his savagery, and not widely worshipped. Roman equivalent: **MARS**.

Ārēthū'sa. **NYMPH** changed by **ARTEMIS** into the fountain of **Arethusa** near **Syracuse** to save her from the pursuit of the river-god **Alpheus**.

A'rgonauts. The fifty heroes who sailed with **JASON** in the *Argo* to find the golden fleece.

Āria'dnē. Daughter of **Minos** who fell in love with **THESEUS** and helped him overcome the **MINOTAUR**. **Theseus** afterwards deserted her.

A'r'tēmis. Twin sister of **APOLLO**. She was the Greek moon goddess, a great huntress, and the protector of all young things. Roman equivalent: **Diana**.

Asclē'pius. Son of **APOLLO**, and Greek god of medicine. The snake was sacred to him because the sloughing of its skin symbolized the renewal of youth.

Atala'nta. Swift-footed Arcadian princess, who made her suitors race with her, putting to death all whom she outran. **Milanion** beat her in the race by dropping at intervals three golden apples given him by **APHRODITE**, which **Atalanta** stopped to pick up.

Athē'na. Also called **Pallas**. Greek goddess of wisdom and the arts, and the patron goddess of **Athens**. At her birth she sprang fully-armed from the head of **ZEUS**. Roman equivalent: **Minerva**.

Atla'ntis. Legendary island in the Atlantic, swallowed up because of the wickedness of its inhabitants.

Atlas. Son of the **TITAN** **Iapetus**. For warring against **ZEUS** he was condemned to hold up the heavens. **PERSEUS** turned him into a mountain by means of the **GORGON's** head.

Ā'trōpos. One of the three **FATES**.

Augean Stables. **Augeas** had 30,000 cattle, and his stables had not been cleaned for 30 years. **HERACLES** cleaned them in a day by diverting the river **Alpheus** through them.

Autō'lýcus. Son of **HERMES** (divine) and **Chione** (mortal). A celebrated thief.

Bacchus. God of wine. *See* **DIONYSUS**.

Bellē'rophon. Corinthian hero, who caught the winged horse, **PEGASUS**, and killed the **CHIMAERA**.

Bō'reas. The north wind.

Calli'opē. **MUSE** of epic poetry.

Calydonian Boar. *See* **MELEAGER**.

Caly'pso. A **NYMPH** who detained **ODYSSEUS** for seven years on his way home from **Troy**.

Cassa'ndra. Trojan princess, daughter of **PRIAM** and **HECUBA**. She had the gift of prophecy but was fated never to be believed.

Ca'stor and Pollux. Sons of **ZEUS** and **Leda** and among the **ARGONAUTS**. After death they became the Heavenly Twins of the constellation **Gemini**, and were worshipped by the Greeks and Romans as protectors of seamen.

Centaurs. Tribe of creatures, half horse and half man, living on Mt. **Pelion** in **Thessaly** (*see* Vol. I, p. 335). **Chiron**, the best and wisest of them, was the tutor of **JASON**, **CASTOR** and **POLLUX**, **ACHILLES**, and other heroes; after his death he became the constellation **Sagittarius**.

Ce'rberus. Three-headed dog guarding the gate of **HADES**.

Cē'rēs. Roman corn goddess, identified with **DEMETER**.

Chā'ron. Boatman who ferried the dead across the **STYX**. The fare (one obol) was put in the mouth of each corpse before burial.

Chāry'bdis. *See* **SCYLLA**.

Chimae'ra. Fire-breathing monster, a lion in front, a dragon behind, and a goat in the middle, killed by **BELLEROPHON** (*see* Vol. I, p. 335).

Chī'ron. *See* **CENTAURS**.

Cimme'rians. Mythical tribe supposed to live in constant mist and cloud in the farthest west.

Cī'rcē. Enchantress who turned **ODYSSEUS's** companions into swine. **Odysseus**, made immune by a drug, forced her to change them back again.

Clī'o. MUSE of history.

Clō'tho. One of the three FATES.

Clȳ'temnestra. Wife of AGAMEMNON.

Crō'nus. In Greek myth the youngest TITAN, son of URANUS. He deposed his father and married his sister Rhea. Fearing rivalry from his children, he swallowed them at birth; but Rhea hid ZEUS, the youngest, who finally deposed his father. Roman equivalent: SATURN.

Cū'pid. Roman equivalent of EROS.

Cȳ'bēlē. Asiatic goddess, the 'Great Mother', whose worship spread to Greece and Rome; her priests played horn, cymbals, and drums, and performed wild dances.

Cȳ'clopes. Race of giants who had one eye in the middle of the forehead and ate human flesh. The best known is POLYPHEMUS.

Dae'dalus. Skilful craftsman who built the Labyrinth for the MINOTAUR, and was kept captive by Minos. To escape, he made wings for himself and his son Icarus; but Icarus flew so near the sun that the wax fastenings of his wings melted, and he fell into the sea and was drowned.

Dām'ocles. Flatterer who told Dionysius, tyrant of Syracuse, how happy a tyrant's life must be. Dionysius invited him to a banquet, where he found a sword hanging over his head by a single horse-hair—a symbol of the anxiety of a tyrant's existence.

Dā'naiids. Fifty daughters of Danaus. For killing their husbands on their wedding night they were punished after death by having to pour water into a sieve.

De'lphī. See APOLLO.

Dēm'ter. Sister of ZEUS, and Greek goddess of crops, especially corn. Mother of PERSEPHONE. Roman equivalent: Ceres.

Diā'na. Italian goddess identified with ARTEMIS.

Dī'do. Mythical founder of Carthage. In Virgil's *Aeneid* she loved AENEAS and killed herself when he deserted her.

Dīony'sus or Bacchus (also the Roman name for him). Son of ZEUS and Semele. God of wine and fertility in general, represented as a wild young man accompanied by raving women (Bacchantes), SATYRS, and other monsters. He inspired music and poetry. The great dramatic festivals of Athens were held in his honour.

Drȳ'ads. Wood NYMPHS.

Ē'cho. NYMPH who angered HERA and was changed by her into an echo.

Ele'ctra. Sister of ORESTES.

Ely'sium. The Elysian fields, home of the blessed after death.

Endȳ'mion. Beautiful youth loved by the moon. He fell into a perpetual slumber, and she came down to him every night.

Ē'rāto. MUSE of love poetry and the lyre.

Ē'ros. Little Greek love god, son of APHRODITE, winged and armed with bow and arrows. Roman equivalent: Cupid.

Eurī'dicē. Wife of ORPHEUS.

Eurus. The south-east wind.

Eute'rpē. MUSE of lyric poetry.

Fates. Three daughters of ZEUS and THEMIS. Lachesis assigned each man his lot, Clotho spun the thread of life, and Atropos cut it off. Some Greek writers regarded them as goddesses of destiny to which even the gods were subject, others merely as symbols of human life.

Fau'nus. Primitive Italian god of the countryside and shepherds. Identified with PAN. Sometimes spoken of in the plural (fauns) and identified with SATYRS, though, unlike Satyrs, fauns had goats' legs.

Flo'ra. Roman goddess of flowers.

Furies. Winged females, with snakes in their hair and eyes dripping blood. They pursued and tortured men, alive and dead, for such crimes as disobeying parents, perjury, murder, or breaking the laws of hospitality.

Gā'nymēde. Cup-bearer of the gods.

Gē or Gaia. Earth, wife of URANUS (Heaven).

Giants. Any beings of great size. Strictly, the monsters that sprang up where the blood of URANUS (Heaven), wounded by CRONUS, fell upon Ge (Earth). They warred against the gods, and were buried under Etna and other volcanoes (see Vol. I, p. 194).

Gorgons. Stheno, Euryale, and Medusa, female monsters, with serpents for hair, wings, and claws. Everyone who looked at Medusa's head was turned to stone; she was killed by PERSEUS.

Graces. Euphrosyne, Aglaia, and Thalia, daughters of ZEUS and friends of the MUSES. They caused the beauty in things.

Hā'dēs. Greek god of the lower world, brother of ZEUS and husband of PERSEPHONE. Roman equivalent: Pluto.

Also the lower world itself. It was surrounded by the river SRYX, across which the dead, if properly buried, were ferried by CHARON. The gate of Hades was guarded by the dog CERBERUS, and inside sat the judges of the dead, Minos, Rhadamanthus, and Aeacus. Most of the dead went to a shadowy existence in the Plain of Asphodel; but the luckiest were received in ELYSIUM, and enemies of the gods were sent down to TARTARUS.

Halcyon. See ALCYONE.

Harpies. Winged monsters with women's faces and long claws.

Hē'bē. Daughter of ZEUS and HERA. Greek goddess of youth, and the serving maid of the gods.

Hē'cātē. Greek goddess with many functions, but mainly a deity of the lower world, and the patron of witches and sorcerers; she wandered about at night with the ghosts of the dead, haunting especially cross-roads, where offerings were put out for her.

Hector. Greatest hero of the Trojans, son of PRIAM and HECUBA. He was killed by ACHILLES.

Hē'cūba. Queen of Troy, wife of PRIAM. After the fall of Troy, she was enslaved by the Greeks.

Helen. Beautiful daughter of ZEUS and LEDA, and wife of Menelaus, King of Sparta. She was carried off to Troy by PARIS, and this was the cause of the Trojan War. When Troy fell after 10 years, she returned to Menelaus.

Hēphaē'stus. Son of ZEUS and HERA, and Greek god of fire. Represented as lame and a blacksmith, he forged the thunderbolts and other works such as the shield of ACHILLES. Roman equivalent: Vulcan.

Hē'ra. Greek goddess, sister and wife of ZEUS; she was (with reason) a jealous wife and constantly quarrelling with her husband. Goddess of marriage. Roman equivalent: Juno.

Hē'raclēs. Roman name: Hercules. Son of ZEUS (divine) and Alcmena (mortal), and the strongest and most famous of Greek heroes. As an infant he strangled two serpents sent to kill him by Hera, who hated him. Sent mad by Hera, he killed his wife and children; and for penance had to perform 12 labours for Eurystheus, King of Argos. (1) He killed the *Nemean Lion*. (2) He killed the *Hydra*, a many-headed water-snake. (3) He caught the *Erymanthian Boar*. (4) He caught the *Hind of Ceryneia*. (5) He drove off the man-eating *Stymphalian Birds*. (6) He cleaned the *AUGEAN STABLES*. (7) He caught the *Cretan Bull*. (8) He tamed the man-eating *Horses of Diomedes*. (9) He won the *Girdle of the queen of the AMAZONS*. (10) He captured the *Oxen of Geryon*. (11) He won the *Apples of the HESPERIDES*. (12) He mastered CERBERUS.

He performed many other feats and was finally destroyed by a poisoned robe which his wife was tricked into giving him. He was taken to OLYMPUS where he was reconciled to Hera.

Hē'rculēs. Roman name for HERACLES.

Hē'rmēs. Greek god, son of ZEUS and Maia, daughter of ATLAS. The messenger of the gods, who took the dead down to HADES. He was also god of roads, cunning and fraud, commerce and wealth, and luck. He carried a herald's staff and wore winged sandals and a travelling hat. Roman equivalent: Mercury.

Hē'ro. Priestess, loved by LEANDER.

Hespē'ridēs. Daughters of ATLAS; they guarded the golden apples which were GE's wedding present to HERA and ZEUS. The apples were stolen by HERACLES.

Hē'stia. Sister of ZEUS, and Greek goddess of the hearth. Roman equivalent: VESTA.

Hippō'lŷtus. Son of THESEUS. He rejected the advances of his stepmother, Phaedra, who in anger falsely accused him to THESEUS. Theseus cursed him, and so POSEIDON caused his chariot to overturn and kill him. Phaedra, in grief and remorse, took her own life.

Hyaci'nthus. Beautiful youth loved by APOLLO. ZEPHYRUS killed him in jealousy, and a flower sprang from his blood.

Hydra. See HERACLES (Labour (2)).

Hŷ'men. Greek and Roman god of marriage.

I'carus. Son of DAEDALUS.

I'da. Mountain near Troy, scene of the judgement of PARIS.

I'o. Princess of Argos, loved by ZEUS who turned her into a heifer to escape HERA's jealousy. Hera set the 100-eyed herdsman, Argus, to watch her; and when ZEUS had Argus killed, Hera sent a gadfly to drive Io from Europe into Egypt. The strait she crossed was called the Bosphorus (i.e. ox-ford).

I'phigē'nia. Daughter of AGAMEMNON, who sacrificed her to get a fair wind for sailing against Troy. ARTEMIS saved her by substituting a hart at the last moment.

Irē'ne. Daughter of ZEUS and THEMIS. Greek goddess of peace. Roman name: Pax.

I'ris. The rainbow, a messenger of the gods.

Jā'nus. Italian god with two faces, patron of gateways and of the beginning of things. New Year's Day was his festival, and January his month. His temple at Rome was closed only in time of peace, which was seldom.

Jā'son. Greek hero, sent by his uncle Pelias, who had usurped his kingdom, to win the golden fleece. Jason set out in the *Argo* with fifty heroes (the Argonauts), and came to Colchis where Aeëtes, the king, had set a dragon to guard the fleece. Aeëtes' daughter Medea fell in love with Jason and helped him win the fleece; but Jason, having returned to Greece to wreak vengeance on Pelias, deserted Medea. She, in revenge, killed her own children and Jason's new wife.

Jū'no. Greatest of Roman goddesses, the queen of heaven and patron of women and marriage; also goddess of money. Identified with HERA.

Jū'piter. Greatest of Roman gods, the king of heaven, giver of victory, god of justice and oaths. He foretold the future by signs in the sky. Rome was under his special protection, and the state religion centred on his great temple on the Capitol. Identified with ZEUS.

Labyrinth. See MINOTAUR.

Lă'chēsis. One of the three FATES.

Lă'rēs and Pēnă'tēs. The private gods of each Roman household; they were worshipped at the hearth, and food was left out for them.

Lēa'nder. Youth of Abydos who swam the Hellespont (Dardanelles) every night to see his love, Hero, a priestess of Sestos on the other side. One night he was drowned, and Hero threw herself into the sea in grief.

Lē'da. Spartan queen whom ZEUS visited in the form of a swan. She was the mother of CASTOR AND POLLUX, HELEN, and CLYTEMNESTRA.

Lē'thē. A river of HADES. The dead drank it and forgot all the past.

Mars. God of war, greatest of the Roman gods after JUPITER. Identified with ARES.

Mēdē'a. See JASON.

Mēdū'sa. See GORGONS.

Mēleā'ger. Calydonian prince. At his birth the FATES said he would live as long as a piece of wood on the fire was unconsumed; his mother snatched it off and kept it safely. He led the heroes who killed the great boar

which ravaged Calydon; when he gave its head to ATLANTA his mother's brothers tried to take it, and he killed them. On hearing this his mother threw the piece of wood on to the fire, so that he died.

Melpō'mēnē. MUSE of tragedy.

Mēnēlā'us. King of Sparta, brother of AGAMEMNON and husband of HELEN.

Mercury. Roman god of commerce. Identified with HERMES as the messenger of the gods.

Mī'das. Wealthy mythical King of Phrygia to whom SILENUS granted the favour that everything he touched should turn to gold; when even his food became gold, Midas prayed for this power to be taken away. When as judge in a music competition between PAN and APOLLO he declared Pan the winner, Apollo changed his ears into ass's ears. He hid them from all except one servant, who, unable to bear the secret, whispered it into a hole in the ground. A reed heard and whispered the news to the wind who took it everywhere.

Mīnē'rva. Roman goddess of wisdom and the arts. Identified with ATHENA.

Mī'nos. See MINOTAUR.

Mī'notaur. Monster, half bull and half man, kept by Minos, King of Crete, in the Labyrinth, built by DAEDALUS. The Athenians had to send a yearly tribute of seven youths and seven girls to be eaten by it until it was slain by THESEUS, with ARIADNE's help.

Mo'rphēus. Greek god of dreams.

Muses. The nine daughters of ZEUS and Mnemosyne (Memory), goddesses of literature and the arts. They were: Clio, history; Euterpe, lyric poetry and the flute; Thalia, comedy; Melpomene, tragedy; Terpsichore, choral dance and song; Erato, love poetry and the lyre; Polymnia, hymns; Urania, astronomy; Calliope, epic poetry.

Nai'ads. Water NYMPHS.

Narci'ssus. Beautiful youth who fell in love with his own reflection, and faded away, finally turning into a flower.

Nē'mesis. Greek goddess who punished crimes, especially pride and insolence towards the gods.

Neptune. Roman god of the sea. Identified with POSEIDON.

Nestor. Oldest of the Greek kings at the Trojan War, always ready with advice and reminiscence.

Nī'ōbē. Daughter of TANTALUS, who boasted that she had more children than Leto, mother of APOLLO and ARTEMIS. The two gods killed all her children, and she was turned into a stone which wept tears.

No'tus. The south wind.

Nymphs. Minor nature goddesses (almost fairies), given different names according to their haunts, e.g. Oceanids in the sea, Dryads in woods, and Naiads in fresh water.

Ocē'ānus. The river supposed to encircle the earth. Also a TITAN, god of the river Oceanus, and father of all water NYMPHS and river-gods.

Ōdy'ssēus. Roman name: Ulysses. Greek warrior, the wily hero of Homer's *Odyssey*, which tells of his ten years' journey homewards after the fall of Troy. See also CALYPSO, CIRCE, PENELOPE, POLYPHEMUS, SIRENS.

Oē'dipus. Son of Laius, King of Thebes. He was brought up abroad, a stranger to his parents. On the road home he unwittingly killed his father. Later, for solving the riddle of the SPHINX he was made king and given the queen in marriage; but on learning that she was his mother he blinded himself and went into exile.

Oenō'nē. NYMPH, loved and deserted by PARIS.

Olympus. Mountain in Thessaly (northern Greece), the home of ZEUS and the Greek gods.

Ops. Roman goddess of plenty, and wife of SATURN.

Ōrē'stēs. Son of AGAMEMNON and Clytemnestra. When Clytemnestra murdered Agamemnon, he was saved by his sister Electra and later persuaded by her to kill his mother in revenge. For this he was pursued by the FURIES but was finally acquitted by ATHENA.

Ōrī'on. Giant and hunter, who was killed by ARTEMIS and became one of the constellations.

Orphēus. Poet and singer, taught by the MUSES and given a lyre by APOLLO, he could charm everything with his music. He even won permission to bring back his wife Eurydice from HADES, but only on condition that he did not look at her until they reached earth. He looked round at the last moment, and so lost her. His worship involved ideas unusual in Greek mythology—of sin, atonement, and immortality.

Pa'llas. See ATHENA.

Pan. Greek god of flocks and shepherds. He had horns and goat's legs, and played the 'pan-pipes', which he had invented. He was thought to be the cause of the sudden fear ('panic') felt by travellers in lonely places. Roman equivalent: Faunus.

Pandō'ra. The first woman sent on earth by ZEUS in revenge for PROMETHEUS' theft of fire from heaven. She brought with her a box containing every kind of evil, which spread over the earth when she opened it.

Paris. Son of PRIAM, King of Troy. ZEUS appointed him judge between HERA, ATHENA, and APHRODITE in competition for a golden apple, prize 'for the fairest'. Each tried to bribe him, but he gave the apple to Aphrodite, who had promised him the most beautiful woman in the world. This was HELEN, wife of MENE-LAUS. Paris carried her off, thus causing the Trojan War in which he was killed.

Parna'ssus. Mountain north of the Corinthian Gulf, sacred to APOLLO and the MUSES.

Pē'gāsus. Winged horse that sprang from the blood of Medusa (see GORGONS); it was caught by BELLEROPHON (see Vol. I, p. 335).

Pēnā'tēs. See LARES.

Penē'lōpē. Wife of ODYSSEUS who, during his absence, was wooed by many suitors. She refused to marry until she had finished weaving a robe, which she worked at every day and unpicked every night until Odysseus returned and killed the suitors.

Persē'phōnē. Daughter of DEMETER who was carried off to the lower world by HADES. Demeter won her back for two-thirds of each year only. She represents the corn seed, underground during the winter and growing up in the spring. Roman name: Proserpina.

Pe'rseūs. Son of ZEUS (divine) and Danae (mortal). He and his mother, cast adrift in a chest, were carried to the country of King Polydectes. Later Polydectes wishing to marry Danae and get rid of Perseus, sent him to bring back MEDUSA's head, the sight of which turned the beholder to stone. Equipped by the gods, he approached the GORGONS while they slept, and cut off Medusa's head by looking in a mirror. On the way home he saved ANDROMEDA; and then turned Polydectes to stone with the Gorgon's head.

Phae'dra. Wife of THESEUS, and in love with HIPPOLYTUS.

Phae'thon. Son of the Sun in Greek mythology. His father allowed him to drive the sun-chariot across the sky for one day; but Phaethon, unable to control the horses, came too low and nearly set the earth on fire. Zeus saved the situation by killing him with a thunderbolt.

Philoctē'tēs. Friend of HERACLES who left him his bow and poisoned arrows. He was bitten by a snake and marooned on an island because of the smell of the wound. But 10 years later ASCLEPIUS cured him so that he might use his weapons in the Trojan War. He killed many Trojans, including PARIS.

Phoe'bus. Another name for APOLLO.

Plū'to. Another name for HADES.

Po'llux. Brother of CASTOR.

Pöly'mnia. MUSE of hymns.

Pölyphēmus. One of the CYCLOPES; he was blinded by ODYSSEUS, some of whose men he had eaten.

Pösei'don. Brother of ZEUS and Greek god of the sea, also of earthquakes and the horse. He had a palace at the bottom of the sea and, armed with a trident, he drove over the waves in a chariot. Roman equivalent: Neptune.

Pri'am. King of Troy, father of HECTOR and PARIS. He was killed at the fall of Troy by ACHILLES' son, Pyrrhus.

Prōcru'stēs. Mythical robber who fitted his victims to a bed, stretching them or cutting off bits, as necessary.

Promē'thēus. Son of the TITAN Iapetus. Against the will of ZEUS, he brought men fire from heaven in a hollow reed. In revenge Zeus chained him to a rock, where his liver was eaten by an eagle every day but grew again every night.

Prōse'rpina. Roman name for PERSEPHONE.

Prōtēus. Old man of the sea in Greek mythology. If caught he would foretell the future, but he changed into every kind of shape in order not to be caught.

Psȳ'chē. 'The soul.' In fable a beautiful maiden loved by EROS (Cupid); they married after many trials caused by APHRODITE's jealousy.

Pygmā'liōn. Mythical King of Cyprus who fell in love with a statue of a woman that he had made; APHRODITE brought her to life, and Pygmalion married her.

Rē'mus. Brother of ROMULUS.

Rhē'a. A TITAN, wife of CRONUS and mother of ZEUS.

Rō'mulus. Son of MARS and a Vestal Virgin (*see* VESTA). He and his twin brother Remus were thrown into the Tiber at birth, but were washed ashore and adopted by a she-wolf. Romulus founded Rome (traditional date 753 B.C.); but killed his brother for scornfully jumping over the walls he had built.

Să'turn. Mythical King of Italy, who married Ops, goddess of plenty and introduced agriculture and a settled life. His reign was regarded as a golden age. Identified with CRONUS.

Să'tyrs. Sons of HERMES. Companions of DIONYSUS, and great drinkers. They had snub noses, pointed ears, horns, and horses' tails. Roman equivalent: Fauns.

Scy'lla. Rock in the Straits of Messina, opposite the whirlpool Charybdis. In it lived a six-headed monster, also called Scylla, which barked like a dog.

Silē'nus. Son of HERMES and closest companion of DIONYSUS. A bald, fat old man, usually drunk. The older SATYRS were often called Sileni.

Sĩ'rens. Sea-nymphs who lured sailors to destruction by their song. ODYSSEUS managed to sail past them by filling his men's ears with wax and tying himself to the mast.

Sĩ'sȳphus. Mythical founder of Corinth. For his greed and dishonesty he was punished after death by having forever to roll a stone uphill, which rolled down again as soon as it got to the top.

Sphinx. A monster who forced passers-by to answer a riddle ('What walks first on 4 legs, then 2 legs, then 3 legs, and is weakest when it has most?'). She ate them when they failed to answer; but killed herself when OEDIPUS gave the answer, 'man'.

Styx. River flowing round HADES, over which CHARON ferried the dead. The gods' most solemn oath was 'By Styx'.

Ta'ntālus. Son of ZEUS and the NYMPH Pluto. For his crimes he was punished after death by being made to stand in a lake with branches of fruit over his head, both water and fruit being always just out of his reach. Hence the word 'tantalize'.

Ta'rtārus. The uttermost hell, as far below HADES as heaven was above earth. Also personified.

Terpsĩ'chōrē. MUSE of dancing.

Thāli'a. MUSE of comedy.

Thē'mis. Daughter of URANUS and Ge; married to ZEUS; mother of IRENE and the FATES. She personified order, custom, and lawfulness in Greek mythology.

Thē'sēus. Mythical king of Athens. He undertook to slay the MINOTAUR, and was helped by ARIADNE, who gave him a sword and a ball of thread. With the sword he killed the Minotaur, and by following the line of thread he found his way out of the Labyrinth in which the Minotaur lived. Later he fought the AMAZONS; and he was one of the ARGONAUTS.

Tirē'sias. Blind and long-lived prophet of Thebes.

Ti'tans. The six sons and six daughters of URANUS and Ge.

Tithō'nus. Greek mortal loved by Dawn, who persuaded the gods to grant him immortality. But as she forgot to ask for eternal youth, he became eternally senile.

Tri'ton. Son of POSEIDON and Amphitrite. The name was often used in Greek mythology for monsters with human heads and fishes' bodies, who blew trumpets of conch-shells to soothe the waves.

Uly'ssēs. Roman name for ODYSSEUS.

Urā'nia. MUSE of astronomy.

Ū'rānus (Heaven). Personified by the Greeks as a former ruler of the universe. He married Ge (Earth) and became father of the TITANS whom he shut up in TARTARUS to avoid their rivalry. Finally they revolted and deposed him in favour of CRONUS.

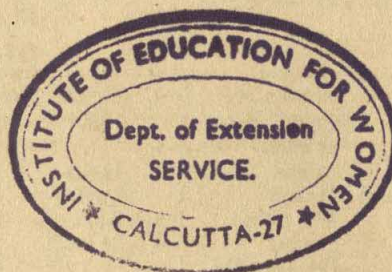
Vē'nus. Roman goddess of love, identified with APHRODITE.

Vesta. Roman goddess of the hearth. At Rome the fire on her altar was tended by the 'Vestal Virgins'. Identified with HESTIA.

Vulcan. Roman god of fire, identified with HEPHAESTUS.

Zē'phȳrus. The west wind.

Zēus. Son of CRONUS and Rhea. Greatest of Greek gods and supreme ruler of gods and men. He lived on OLYMPUS. He was in general thought of as just and humane, the source of all law and order and the helper especially of wayfarers and those in distress. He was armed with thunder and lightning, and he controlled the elements. The oak tree and the eagle were sacred to him. Roman equivalent: JUPITER



THE LIFE CYCLES OF ANIMALS

THE life histories of many wild animals are not fully known, and, for this reason, there are gaps in these lists. The length of life given (in years) is the maximum recorded, often in captivity; the average life of most animals may be far less than this because they are preyed on by other animals or fall victims to disease or bad weather. This applies particularly to birds, and so their average (A) and potential (P) lengths of life are given. In the case of reptiles the age of maturity cannot be given and the natural length of life may be greater than is given, for reptiles do not survive long in captivity. Other figures are given in years (yrs.), months (mths.), or days.

The figures given for the number of young are those born or hatched in one season or at one time.

MAMMALS

	Period of gestation	No. in litter	Age at maturity	Length of life (years)		Period of gestation	No. in litter	Age at maturity	Length of life (years)
Antelope	6 mths.	1	1 yr.	15	Hippopotamus	8 mths.	1	..	40
Armadillo	8½ mths.	4-5	..	15	Horse	11-11½ mths.	1	1 yr.	50
Badger	7 mths.	2-3	1½ yrs.	14	Kangaroo	30-40 days	1	..	17
Bat (Pipistrelle)	44 days	1	2 yrs.	12	Lion	3½-3¾ mths.	2-6	3 yrs.	20
Bear, Brown	7-8½ mths.	1-3	6 yrs.	34	Monkey	4½-5 mths.	1-3	..	16
Beaver	3 mths.	3-4	2½ yrs.	20	(Marmoset)				
Camel	12½-14½ mths.	1	..	40	Mouse	18-20 days	2-9	3 mths.	2
Cat	63 days	2-6	15 mths.	21	Muskrat	29-30 days	1-11	1 yr.	
Chimpanzee	7-7½ mths.	1-2	10 yrs.	40	Opossum,	12½ days	8-12	1 yr.	7
Cow	9½-9¾ mths.	1-2	18 mths.	20	American				
Deer, Red	7½ mths.	1	2 yrs.	23	Pig	3½ mths.	4-16	7 mths.	15
Dog	58-63 days	2-10	6-8 mths.	20	Porcupine	3¾ mths.	1-4	..	20
Elephant	19-22 mths.	1	12 yrs.	70	Rabbit	30-32 days	2-12	6 mths.	6
Ferret	42 days	5-13	..	..	Rat	21 days	6-19	3 mths.	3
Fox	49-55 days	3-7	10 mths.	12	Reindeer	7-8 mths.	1-2	1½ yrs.	15
Giraffe	14-15 mths.	1	..	27	Rhinoceros	17¾-18½ mths.	1	4-5 yrs.	40
Goat	5 mths.	2-3	6 mths.	17	Sea-lion	11-11½ mths.	1	2 yrs.	23
Gorilla	..	1	8 yrs.	..	Sheep	4¾-5 mths.	1-2	7 mths.	15
Guinea-pig	67-68 days	3-4	55-70 days	6	Squirrel	32-40 days	3-5	1 yr.	10
Hamster, Golden	16 days	1-12	8 mths.	1-2	Tiger	3½ mths.	1-6	3 yrs.	20
Hedgehog	34-49 days	4-6	..	3	Whale	1 yr.	1	2 yrs.	24

BIRDS

	Incubation period (days)	Size of clutch	Age at maturity (years)	Age (years)			Incubation period (days)	Size of clutch	Age at maturity (years)	Age (years)	
				A	P					A	P
Albatross	80	1	about 9	36	very large	Mallard	28	10-12	1	1.5	26
Blackbird	13	3-6	1	1.9	12	Ostrich	42	8-12	2	..	40
Blue Tit	13	7-14	1	0.9	8	Owl, Tawny	29	2-4	..	..	30
Canary	14	4-5	6 mths.	..	34	Parrot (large)	30	2-3	3?	..	80
Crow	15	4-6	1	about 2	20	Penguin	45	1-2	2-4	10	..
Dove	14	2	1	1.3	20	Pheasant	23	8-15	1	1.5	21
Eagle	43	2	3-4	13-15	46	Robin	13	5-6	1	1.1	11
Goose, domestic	27	4-6	1	..	80	Sparrow, House	13	3-5	1	1.3	14
Gull, Herring	26	3	3	2.8	44	Swan	36	5-8	3-4	..	25
Lapwing	28	4	1	2.4	14	Swift	20	2-3	2	5	20
						Wren	16	5-6	1	about 1	6

FISH

	<i>Time taken for eggs to hatch*</i>	<i>Number of eggs</i>	<i>Age at maturity</i>	<i>Length of life (years)</i>		<i>Time taken for eggs to hatch*</i>	<i>Number of eggs</i>	<i>Age at maturity</i>	<i>Length of life (years)</i>
Carp	3-4 days	400,000- 2,000,000	3-4 yrs.	40 (150†)	Perch	18 days	260,000- 150,000	3 yrs.	10
Cod	12-30 days	6,000,000	4 yrs.	13	Pike	14-21 days	130,000- 590,000	3 yrs.	15 (60-70†)
Dogfish,	7 mths.	2 at intervals	3-4 yrs.	18	Plaice	10-21 days	500,000	3 yrs.	22
Lesser- spotted					Salmon	2-5 mths.	10,000- 15,000	3-5 yrs.	13
Goby,	14 days	2,000	6-8 mths.	1	Sturgeon	3-7 mths.	2,000,000- 3,000,000	3-5 yrs.	25
Transparent									
Herring	7-42 days	21,000- 47,000	4-5 yrs.	18					

* The time varies with the temperature of the water in which the eggs are deposited.

† These figures have been quoted but there is no reliable evidence for them.

REPTILES AND AMPHIBIANS

	<i>Development of egg or larva</i>	<i>No. of eggs or young</i>	<i>Length of life (years)</i>		<i>Development of egg or larva</i>	<i>No. of eggs or young</i>	<i>Length of life (years)</i>
Adder or Viper	3-4 mths.	6-20		Newt, Smooth or Common	3½-4 mths.	225-300	
Chameleon, Common	3½ mths.	24-37	3½	Python	2-3 mths.	100	21
Cobra	2½-3 mths.	12-40	25	Rattlesnake		9-30	17
Crocodile, Nile	40 days	20-100	30	Slow Worm	4 mths.	4-19	45
Frog, Common	3 mths.	1,000-2,000	12	Toad, Common	65-108 days	3,000-4,000	40
Lizard, Viviparous or Common	2-4 mths.	5-8		Tortoise	3½-4 mths.	2-4	150

SOURCES OF FURTHER INFORMATION

NATIONAL MUSEUMS AND LIBRARIES

THE BRITISH MUSEUM, Great Russell Street, London, W.C. 1.

VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, London, S.W. 7.

ROYAL SCOTTISH MUSEUM, Chambers Street, Edinburgh, 1.

NATIONAL MUSEUM OF WALES, Cathays Park, Cardiff.

There are municipal museums and art galleries in all the large provincial cities, and many smaller ones. They contain works of art of general interest, and often special exhibits of local interest.

PUBLIC RECORD OFFICE AND MUSEUM, Chancery Lane, London, W.C. 2. (National archives).

BRITISH MUSEUM LIBRARY, Great Russell Street, London, W.C. 1.

NATIONAL LIBRARY OF SCOTLAND, Edinburgh.

NATIONAL LIBRARY OF WALES, Aberystwyth.

BODLEIAN LIBRARY, Oxford.

CAMBRIDGE UNIVERSITY LIBRARY, Cambridge.

TRINITY COLLEGE LIBRARY, Dublin.

There are Public Libraries in all the large cities and in most towns of Great Britain. These contain reference books of general interest and usually some on topics of local interest.

MUSEUMS CONNECTED WITH FAMOUS PEOPLE

JANE AUSTEN

Jane Austen's House, Chawton, Hants.

ADMIRAL BLAKE

Museum, Bridgwater, Som.

THE BRONTËS

Brontë Parsonage Museum, Haworth, nr. Keighley, Yorks.

JOHN BUNYAN

Bedford Public Library, Elstow Moot Hall, Bedford.

ROBERT BURNS

Alloway Cottage and Museum, Ayrshire, Scotland.

Burns Monument and Museum, Kilmarnock.

LORD BYRON

Newstead Abbey, Notts.

THOMAS CARLYLE

24 Cheyne Row, Chelsea, London.

Carlyle's Birthplace, Ecclefechan, Scotland.

ANDREW CARNEGIE

Andrew Carnegie Birthplace Memorial, Dunfermline.

JOSEPH CHAMBERLAIN

Joseph Chamberlain Memorial Museum, Birmingham.

RICHARD COBDEN

Dunford House, Heyshott, nr. Midhurst, Sussex.

S. T. COLERIDGE

Coleridge's Cottage, Lime Street, Nether Stowey, Som.

JAMES COOK

Museum of Literary and Philosophical Society, Whitby, Yorks.

WILLIAM COWPER

Cowper Museum, Olney, Bucks.

SAM. CROMPTON

Hall i' th' wood Museum, Bolton.

SAINT CUTHBERT

Durham Cathedral Library and Museum.

CHARLES DARWIN

Downe House, Downe, Kent.

PETER DE WINT

Usher Art Gallery, Lincoln.

CHARLES DICKENS

Dickens House, 48 Doughty Street, London, W.C. 1.

Dickens Birthplace Museum, 393 Commercial Road, Portsmouth.

Buckland Abbey and Tythe Barn, Plymouth.

Broadheath, nr. Worcester.

FRANCIS DRAKE

Dorset County Museum, Dorchester.

EDWARD ELGAR

Hauteville House, Guernsey, Channel Islands.

THOMAS HARDY

Russell-Cotes Art Gallery and Museum, Bournemouth.

VICTOR HUGO

Dr. Johnson's House, Breadmarket Street, Lichfield.

HENRY IRVING

Dr. Johnson's House, 17 Gough Sq., Johnson's Court, Fleet Street, London, E.C. 4.

SAMUEL JOHNSON

JOHN KEATS	Keats Memorial House and Museum, Wentworth Place, Keats Grove, N.W. 3.
DAVID LIVINGSTONE	Scottish National Memorial to D. Livingstone, Blantyre.
ANDREW MARVELL	Historical Museum, High Street, Hull.
JOHN MILTON	Milton's Cottage, Chalfont St. Giles, Bucks.
DUKE OF MONMOUTH	The Museum, Bridgwater, Som. (inc. relics of Sedgemoor).
THOMAS MORE	Tudor Barn Art Gallery, Well Hall, Eltham, London.
WILLIAM MORRIS	William Morris Gallery, Water House, Lloyd Park, Forest Road, Walthamstow, London, E. 17.
HORATIO NELSON	Victory Museum, Portsmouth. Nelson Museum, Glendower Street, Monmouth.
ISAAC NEWTON	The Museum, Grantham.
ROBERT OWEN	Memorial Museum, Newtown, Mont.
CECIL RHODES	Rhodes Memorial Museum, Bishop's Stortford.
JOHN RUSKIN	Ruskin Gallery, Bembridge, Isle of Wight. Ruskin Museum, Brantwood, Coniston, Lancs.
ROBERT SCOTT	Polar Research Institute, Cambridge.
WALTER SCOTT	Huntley House Museum, Canongate, Edinburgh, 8.
WILLIAM SHAKESPEARE	Shakespeare Birthplace, Stratford-on-Avon. New Place, Stratford-on-Avon. Anne Hathaway's Cottage, Shottery, Warwicks. Mary Arden's House, Wilmcote, Warwicks.
R. L. STEVENSON	Memorial House, 8 Howard Place, Edinburgh.
IZAACK WALTON	Izaak Walton Museum, Shallowford, Staffs.
GEORGE WASHINGTON	Sulgrave Manor, nr. Banbury, Oxon.
G. F. WATTS	Watts' Gallery, Compton, Surrey.
JAMES WATT	Watt Institution, 15 Kelly St., Greenock.
DUKE OF WELLINGTON	Wellington Museum, Apsley House, Hyde Park Corner, W. 1.
JOHN WESLEY	Wesley's House, 47 City Road, London, E.C. 1.
WILLIAM WILBERFORCE	Wilberforce House, Hull.
GENERAL WOLFE	Quebec House, Westerham, Kent.
WILLIAM WORDSWORTH	Dove Cottage, Grasmere. Wordsworth Museum, Grasmere.

Most Public Libraries also possess special collections of books by and about the famous people who have connexions with their town or county.

PREHISTORIC LIFE AND EARLY CIVILIZATIONS

- BRITISH MUSEUM, Great Russell Street, London, W.C. 1 (Art of early civilizations).
 NATIONAL MUSEUM OF ANTIQUITIES OF SCOTLAND, Queen Street, Edinburgh, 2.
 NATIONAL MUSEUM OF WELSH ANTIQUITIES, University College of North Wales, College Road, Bangor (Prehistoric and classical antiquity).
 ASHMOLEAN MUSEUM, Beaumont Street, Oxford (Prehistoric and classical antiquities).
 PITT RIVERS MUSEUM, Parks Road, Oxford (Prehistoric life).
 CAMBRIDGE UNIVERSITY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY, Downing Street, Cambridge.
 CAMBRIDGE UNIVERSITY MUSEUM OF CLASSICAL ARCHAEOLOGY, Little St. Mary's Lane, Cambridge (Greek and Roman sculpture).
 FITZWILLIAM MUSEUM, Cambridge (Classical antiquities).
 YORKSHIRE MUSEUM, Museum Street, York (Roman, Saxon, and Medieval antiquities).
 MORTIMER MUSEUM OF PREHISTORIC ARCHAEOLOGY, Carr Lane, Hull (Objects from Yorkshire burial grounds).
 WELLS MUSEUM, Cathedral Green, Wells, Somerset (Prehistoric remains).
 MUSEUM OF THE GLASTONBURY ANTIQUARIAN SOCIETY, Glastonbury (Iron Age Village remains).
 VERULAMIUM MUSEUM AND ROMAN CITY, St. Albans, Hertfordshire (Mosaics and hypocaust).
 VIROCONIUM MUSEUM, Wroxeter, Shropshire (Roman remains).

READING MUNICIPAL MUSEUM, Blagrove Street, Reading (Roman collection from Silchester).
 LEGIONARY MUSEUM, Caerleon, Wales (Roman remains).
 BATH ROMAN MUSEUM, Abbey Churchyard, Bath.
 ROMAN SITE AND MUSEUM, Corbridge, Northumberland.

COUNTRIES AND PEOPLES

BRITISH MUSEUM (Ethnographical Dept.) Great Russell Street, London, W.C. 1.
 IMPERIAL INSTITUTE, South Kensington, London, S.W. 7. (Commonwealth countries).
 HORNIMAN MUSEUM, London Road, London, S.E. 23.
 PITT RIVERS MUSEUM, Parks Road, Oxford (Ethnology).
 CAMBRIDGE UNIVERSITY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY, Downing Street, Cambridge.
 ROYAL GEOGRAPHICAL SOCIETY MUSEUM, 1 Kensington Gore, London, W. 8. (Explorers).
 JEWISH MUSEUM, Woburn House, Upper Woburn Place, London, W.C. 1.
 PITT RIVERS MUSEUM, Farnham, Blandford, Dorset.

Information about different countries can be obtained through the various Embassies and Consulates of foreign countries, through Commonwealth Commissioners for Commonwealth countries, or the Information Centres and Travel Agencies organized by certain countries.

NATURAL HISTORY AND GEOLOGY

BRITISH MUSEUM (Natural History), Cromwell Road, South Kensington, London, S.W. 7.
 ZOOLOGICAL MUSEUM, BRITISH MUSEUM, NATURAL HISTORY DEPT., Akeman Street, Tring, Herts.
 OXFORD UNIVERSITY MUSEUM, Parks Road, Oxford.
 CAMBRIDGE UNIVERSITY MUSEUM OF ZOOLOGY, Downing Street, Cambridge.
 GEOLOGICAL MUSEUM, Exhibition Road, South Kensington, London, S.W. 7.
 NATIONAL MUSEUM OF WALES, Cathays Park, Cardiff.
 MARINE BIOLOGICAL STATION, Aquarium and Fish Hatchery, Port Erin, Isle of Man.
 ROBERTSON MUSEUM and AQUARIUM, Marine Station, Keppel Pier, Millport, Scotland (Clyde Sea Area specimens).
 HANCOCK MUSEUM, Barras Bridge, Newcastle-upon-Tyne, 2.
 ROYAL SCOTTISH MUSEUM (Natural History Dept., Children's Gallery, Geology Dept.), Chambers Street, Edinburgh, 1.
 CANNON HILL MUSEUM, Pershore Road, Birmingham.
 ROYAL BOTANIC GARDENS (Kew Gardens), London.
 UNIVERSITY BOTANIC GARDENS, Cambridge.
 BOTANIC GARDENS, Oxford.
 ZOOLOGICAL GARDENS, Regent's Park, London.
 ZOOLOGICAL GARDENS, Edinburgh, Manchester, Glasgow, and other large cities.

Societies

ROYAL SOCIETY FOR THE PROTECTION OF BIRDS; SEVERN WILDFOWL TRUST; ZOOLOGICAL SOCIETY; and others.

Most local museums have natural history collections of the local flora and fauna, and geological specimens and exhibits showing formations in the locality.

SCIENCE, INDUSTRY, AND COMMERCE

General

SCIENCE MUSEUM, Exhibition Road, South Kensington, London, S.W. (All branches of science).
 MUSEUM OF THE HISTORY OF SCIENCE, Broad Street, Oxford (Collection of scientific instruments).
 WHIPPLE MUSEUM OF THE HISTORY OF SCIENCE, 14 Corn Exchange Street, Cambridge.

SCIENCE AND ENGINEERING MUSEUM, Exhibition Park, Great North Road, Newcastle (Mining, ships, and locomotives).

THE PATENT OFFICE PUBLIC LIBRARY, 25 Southampton Buildings, London, W.C. 2.

Medical science

WELLCOME HISTORICAL MEDICAL MUSEUM, 183 Euston Road, London, N.W. 1.

ROYAL COLLEGE OF SURGEONS MUSEUM, Lincoln's Inn Fields, London, W.C. 2.

ANATOMICAL MUSEUM, University New Buildings, Teviot Row, Edinburgh, 8.

Industry and commerce

CAMBORNE SCHOOL OF METALLIFEROUS MINING MUSEUM, Camborne, Cornwall.

COMMERCE AND TRANSPORT MUSEUM, High Street, Hull (Local industries).

BIRMINGHAM CITY MUSEUM, DEPT. OF SCIENCE AND INDUSTRY, Newhall Street, Birmingham, 3.

SHEFFIELD CITY MUSEUM, Weston Park, Sheffield, 10 (Plate and cutlery industries).

PAISLEY MUSEUM, High Street, Paisley (Paisley shawl industry).

BRIDEWELL MUSEUM OF LOCAL INDUSTRIES, Bridewell Alley, Norwich.

LUTON MUSEUM, Wardown Park, Luton (Straw hat and pillow lace industries).

LEWIS TEXTILE MUSEUM, Blackburn (Spinning and weaving industries).

STOKE-ON-TRENT PUBLIC MUSEUM, Pall Mall, Hanley (Pottery).

MARTINWARE POTTERY COLLECTION, Osterley Park Road, Southall.

GERSHOM-PARKINGTON MEMORIAL COLLECTION OF CLOCKS AND WATCHES, 8, Angel Hill, Bury St. Edmunds, Suffolk.

ROCHDALE CO-OPERATIVE MUSEUM, Toad Lane, Rochdale.

INDUSTRIAL SAFETY, HEALTH, AND WELFARE MUSEUM, Horseferry Road, London, S.W. 1.

Agriculture

AGRICULTURAL MUSEUM, Wye College, Wye, Kent.

READING UNIVERSITY DEPT. OF AGRICULTURE MUSEUM, Reading, Berkshire.

ROTHAMSTED EXPERIMENTAL AGRICULTURAL INSTITUTE, Harpenden, Hertfordshire.

CAMBRIDGE AGRICULTURAL INSTITUTE, Cambridge.

JOHN INNES HORTICULTURAL INSTITUTE, Bayfordbury, Hertfordshire.

THE CURTIS MUSEUM, High Street, Alton, Hampshire (Farm implements).

WEST YORKSHIRE FOLK MUSEUM, Shibden Hall, Halifax, Yorkshire (Early agricultural implements).

TRANSPORT

SCIENCE MUSEUM, Exhibition Road, South Kensington, London, S.W. 7.

COMMERCE AND TRANSPORT MUSEUM, Old Corn Exchange, High St., Hull.

Road

MUSEUM OF CARRIAGES, KENT COUNTY MUSEUM, Chillington Manor House, Maidstone.

MOTOR CAR MUSEUM, adjacent Beaulieu Abbey, Brockenhurst, Hampshire.

Ships and shipping

NATIONAL MARITIME MUSEUM, Greenwich, London, S.E. 10.

ROYAL UNITED SERVICE MUSEUM, Whitehall, London, S.W. 1.

ORKNEY NATURAL HISTORY MUSEUM, 52 Alfred Street, Stromness (Whaling).

FISHERIES AND SHIPPING MUSEUM, Pickering Park, Hull.

Aircraft

ROYAL UNITED SERVICE MUSEUM, Whitehall, London, S.W. 1.

THE SHUTTLEWORTH COLLECTION, Old Warden Aerodrome, Old Warden, Bedfordshire (also road transport exhibits).

Railways

RAILWAY MUSEUM, Queen Street, York.

PUBLIC SERVICES

Armed forces

- IMPERIAL WAR MUSEUM, Lambeth Road, London, S.E. 1.
 ROYAL UNITED SERVICE MUSEUM, Whitehall, London, S.W. 1.
 SCOTTISH UNITED SERVICES MUSEUM, Crown Square, Edinburgh Castle, Edinburgh.
 NATIONAL MARITIME MUSEUM, Greenwich, London, S.E. 10.
 ROYAL MILITARY ACADEMY SANDHURST MUSEUM, Camberley, Surrey.
 THE ARMOURIES, Tower of London, E. C. 3.
 WALLACE COLLECTION, Hertford House, Manchester Square, London, W. 1 (Armoury).
 GLASGOW MUSEUM, Kelvingrove, Glasgow (Armoury Collections).
 AIRBORNE FORCES MUSEUM, Maida Barracks, Aldershot, Hampshire.
- Most National and County Regiments have their own museums which usually contain the uniforms, colours and historical exhibits of their Regiment.
- For Royal Navy see also under Ships and Shipping.

Other services

- TOTTENHAM MUSEUM, Bruce Castle, Lordship Lane, N. 17 (Postal services).
 CHARTERED INSURANCE INSTITUTE MUSEUM, 20 Aldermanbury, E.C. 2 (Firefighting appliances, &c.).
 SCOTLAND YARD, Whitehall, London, S.W. 1 (Criminal investigation).
 ROYAL INSTITUTE OF PUBLIC HEALTH AND HYGIENE, 28 Portland Place, London, W. 1.
 PARKER MUSEUM OF HYGIENE, ROYAL SANITARY INSTITUTE, 90 Buckingham Palace Road, London, S.W. 1.
 MUSEUM OF THE SCHOOL OF HYGIENE, 126 Mount Pleasant, Liverpool, 3.

HOMES AND HOME LIFE

General

- VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, London, S.W. 7.
 LONDON MUSEUM, Kensington Palace, London, W. 8 (Exhibits illustrating history of London).
 GUILDHALL MUSEUM, King Street, Cheapside, London, E.C. 2 (Exhibits illustrating history of the City of London).
 CAMBRIDGE AND COUNTY FOLK MUSEUM, Cambridge.
 YORK CASTLE MUSEUM, Tower Street, York (Folk Museum).
 WELSH FOLK MUSEUM, St. Fagan's, Glam.
 STRANGER'S HALL FOLK MUSEUM, Norwich.
 BISHOP HOOPER'S LODGING FOLK MUSEUM, Gloucester.
 MANX VILLAGE FOLK MUSEUM, Cregneash, Isle of Man.
 FOLK MUSEUM, Kingussie, Inverness.
 KENT COUNTY MUSEUM, Chillington Manor House, Maidstone, Kent.
 BLAISE CASTLE HOUSE FOLK MUSEUM, Henbury, Bristol.

There are many country houses of historical interest, owned by the National Trust, by municipal authorities, or privately, which are open to the public.

Furniture

- GEFFRYE MUSEUM, Kingsland Road, E. 2 (16th-20th-century furniture).
 HALL 1' TH' WOOD MUSEUM, Bolton (16th-century furniture).
 OLD HOUSE, High Town, Hereford (Jacobean furniture).
 GEORGIAN HOUSE, 7 Great George Street, Bristol (Georgian furniture).
 HAM HOUSE, Petersham, Surrey (Late Stuart furniture).
 ASTON HALL, Trinity Road, Aston, Birmingham (Jacobean furniture).
 TEMPLE NEWSAM, Leeds (17th- and 18th-century furniture).
 BOWES MUSEUM, Barnard Castle, Co. Durham (English and Continental furniture).
 THE PAVILION, Brighton (Regency decoration and furniture).
 IVEAGH BEQUEST, Ken Wood, Hampstead, London, N.W. 3 (18th-century furniture and pictures).

Costume

GALLERY OF ENGLISH COSTUME, Platt Hall, Rusholme, Manchester, 14.
 MUSEUM OF COSTUME, Eridge Castle, Tonbridge Wells.
 CANONGATE TOLBOOTH, Edinburgh, 8 (Highland dress).
 BETHNAL GREEN MUSEUM (Victoria and Albert Museum), Cambridge Heath Road, E. 2.
 LONDON MUSEUM, Kensington Palace, The Broad Walk, Kensington Gardens, W. 8 (Collection of Royal robes).

Children's museums, toys, and sport

TOLLCROSS MUSEUM, Tollcross Park, Glasgow (Children's Museum).
 BETHNAL GREEN MUSEUM (Victoria and Albert Museum) Cambridge Heath Road, London, E 2. (Dolls and dolls' houses collection).
 WINDSOR CASTLE, Windsor, Berks. (Queen's dolls' house).
 IMPERIAL CRICKET MEMORIAL GALLERY, Lord's Cricket Ground, St. John's Wood, N.W. 8.

FINE ARTS

London

NATIONAL GALLERY, Trafalgar Square, London, W.C. 2 (Paintings of all schools).
 NATIONAL PORTRAIT GALLERY, St. Martin's Place, Trafalgar Square, London, W.C. 2 (British portraits).
 TATE GALLERY, Millbank, London, S.W. 1 (Modern British and foreign art).
 ROYAL ACADEMY OF ARTS, Burlington House, Piccadilly, London, W. 1 (Summer exhibitions and special winter exhibitions).
 VICTORIA AND ALBERT MUSEUM, Cromwell Road, South Kensington, London, S.W. 7 (Applied and fine arts).
 WALLACE COLLECTION, Hertford House, Manchester Square, London, W. 1 (Paintings of all schools, French furniture and porcelain, armour).
 SIR JOHN SOANE'S MUSEUM, 13 Lincoln's Inn Fields, London, W.C. 2 (Hogarth and architectural drawings).
 ROYAL COLLEGE OF MUSIC, DONALDSON MUSEUM, Prince Consort Road, South Kensington, London, S.W. 7 (Musical instruments).
 HAMPTON COURT PALACE, Hampton Court, Middx.
 DULWICH COLLEGE PICTURE GALLERY, College Road, London, S.E. 21 (Paintings, chiefly 17th and 18th centuries).

Edinburgh

NATIONAL GALLERY OF SCOTLAND, The Mound, Edinburgh, 1 (Art of all schools).
 SCOTTISH NATIONAL PORTRAIT GALLERY, Queen Street, Edinburgh, 2 (Scottish portraits).
 ROYAL SCOTTISH ACADEMY, Prince's Street, Edinburgh (Special exhibitions).

Cardiff

NATIONAL MUSEUM OF WALES, Cathays Park, Cardiff.

Other galleries

FITZWILLIAM MUSEUM, Trumpington Street, Cambridge (Art of all schools).
 ASHMOLEAN MUSEUM OF ART AND ARCHAEOLOGY, Beaumont Street, Oxford (Art of all schools).
 BOWES MUSEUM, Barnard Castle, Co. Durham (Painting, furniture, and ceramics).
 BARBER INSTITUTE OF FINE ARTS, The University, Birmingham, 15.
 WALKER ART GALLERY, William Brown Street, Liverpool (Painting of all schools).
 WHITWORTH ART GALLERY, Oxford Road, Manchester (Water colours).
 GRAVES ART GALLERY, Sheffield, 1 (British and European painting).
 NORWICH CASTLE MUSEUM, Norwich (Water colours).
 MUSEUM OF EASTERN ART, The Indian Institute, Broad Street, Oxford (Indian and Chinese sculpture and ceramics).

The municipal galleries in all large provincial cities and many smaller ones contain works of art of general interest, and often have special exhibitions of local interest.

INDEX TO VOLUMES I-XII AND INDEX VOLUME

- Aachen (Aix-la-Chapelle), Germany, V-82b; XII-169a
Aard-Vark (ant-bear) II-1a
Aard-wolf II-1b
 Aaron, Hebrew high priest, I-385a; Index p. 123a
 abacus IV-115a
 Abaddon, underworld, Index p. 123a
 abalone steaks XI-405b
 Abba, father (Aramaic), Index p. 123a
 Abbas, Shah of Persia (1587-1628), XII-340a
 abbeys I-325; architecture of, XII-273a
 Abbey Theatre, Dublin, V-495b, 436b
 abbot I-325a
 Abbots Bromley Horned Dance IX-232b; *illus.* IX-238
 Abdication Act (1936) X-121a
 Abednego (Azariah), friend of Daniel, Index p. 123a
 Abel, son of Adam, Index p. 123a
 Abélard, Peter (1079-1142), French religious philosopher, V-1a
 Aberdeen, Scotland, III-398b
 Aberdeen Angus cow VI-76b; *illus.* VI, opp. p. 80
 aberration, of lens, VIII-253b
 Abigail, wife of King David, Index p. 123a
 Abney level (clinometer), surveying instrument, VIII-429a
 Aborigines, Australian, I-46a; *illus.* I-391; totemism, I-475a
 Aboukir Bay, battle (1798), V-332b
 Aboyne games, Highland Games, IX-277-9
 abracadabra, magic formula, I-451b
 Abraham, Hebrew patriarch, I-68b, 218a; Index p. 123a
 Abraham, Plains of, Quebec, III-358a
 Absalom (10th cent. B.C.), son of King David, V-127b; Index p. 123a
 abstract art XII-268b
 Abu Simbel, Nubia, temple of, V-381b
 Abyssinia (Ethiopia), E. Africa, III-1; *map* III-5
 Abyssinians (Ethiopians) I-1a
 A.C., electric current, *see* alternating current
 Académie Française XII-1a
 Academies XII-1a
 Academy, Plato's, V-366b, 254b
 acanthus, ornament, Quebec, XII-320
 acceleration, of falling bodies, III-199b
 accent IV-479b
 accidental notes, music, XII-288a
 Accident Insurance VII-246a
 accidents: factory, X-207a; railway, IV-342b; roads, IV-372b; first aid, XI-167b
 accordion, musical instrument, IX-401a
 accountancy VII-48a
 Accounting Machine VII-1a; VIII-51b
 accumulator, electric, VIII-20b
 acetic acid VII-6a
 acetylene gas VIII-86a
 Achaeans, people of Ancient Greece, I-204a
 achenes, fruits, botanical, II-166b
 Acheron, river, Greek mythol., I-200b; Index p. 137a
 Achilles, Greek hero, XII-194b; I-208a; Index p. 137a
 Achitophel (Ahitophel), counsellor of King David, Index p. 123a
 achromatic doublet lens VIII-254b, 57b
 Acids VII-3b
 aconite, plant, *illus.* VI-60; Index p. 64
 acorn VI-2a
 Acoustics VIII-1a; IX-336a
 acre, land measurement, VI-10a
 Acrobats IX-1a, 134a
 Acropolis, Athens, XII-3a; III-33b; I-470b; *illus.* I-203
 acrostics, word puzzles, IX-394a
 Actaeon, huntsman, Greek mythol., Index p. 137a
 Acting IX-3a; history, IX-5
 Actium, battle (31 B.C.), V-294b
 Act of Parliament X-1a; of Appeals (1533), V-219b; of Supremacy (1534), I-124a, (1559), V-155a; of Uniformity (1559), V-155a
 Act of Six Articles (1539) V-220a
 Acts of the Apostles I-70b; V-353b
 actuary, in insurance, VII-245b
 A.D. (Anno Domini) III-69a
 Adam, Adolphe (1803-56), French composer, XII-38a
 Adam Brothers, architects, V-2a; Adam festoon, *illus.* XII-320; fireplaces, XI-167a; furniture, XI-51b
 Adam, first man, Index p. 123a
 Adam's apple, of throat, XI-138b
 Adams, John Couch (1819-92), British astronomer, III-343b
 Adder (viper) II-1b
 adding machine VII-1a; VIII-51b
 Addis Ababa, Abyssinia, III-2a; *map* III-5
 Addison, Joseph (1672-1719), essayist, V-3b; XII-336a
 addition, mathematics, VIII-12b
 Adelaide, S. Australia, III-2a; *map* III-41
 Adelphi, London, V-3b
 Aden, port, Arabia, III-16b
 adenoids XI-451b
 adit mine VIII-299a
 Adler, Felix (1870-1937), Viennese psychologist, XI-373b
 Admiralty X-3b; charts, IV-93b; court of, X-184a; survey ships, X-94a
 adobe, rock, III-378b
 adolescence XI-284b
 Adonai (Jehovah) I-271a
 Adonis, character of Greek mythol., Index p. 137b
 Adoption XI-1a
 Adoption Act (1950) XI-1a
 adrenal (suprarenal) glands XI-138b
 Adriatic Sea III-280b; *map* III-160
 Adult Education X-4b; polytechnics, X-332a; technical colleges, X-448a
 Advent, in Christian year, I-122b
 Advertising and Publicity VII-6b; IV-337a; books, IV-50b; newspapers, VII-306a; posters, XII-352a; IV-199a; radio, IX-102a; IV-68b
 Advocates, Faculty of, Scottish barristers, X-392a
 adze, tool, VII-476b
 Aediles, Roman magistrates, X-348a
 Aegean civilization: Minoan, I-317a; Mycenaean, I-329a
 Aegean Sea III-132a; *map* III-160
 Aeneas, legendary Greek hero, V-461b; XII-134a; Index p. 137b
 aeolian harp IX-275b
 Aeolus, Greek god, I-453a; Index p. 137b
 aerated waters XI-73b
 aerial, radio, VIII-356b
 Aerobatics IV-1a
 aerodrome IV-17b
 aerodynamics VIII-217a; IV-154b
 aeromodelling IX-321a
 Aeronautical Engineering VIII-3a; wind tunnel, VIII-487a
 Aeroplane IV-3a, 7a; industry, VII-10b
 Aeschylus (c. 525-456 B.C.), Athenian tragic poet, V-4a, 422b
 Aesculapius (Asclepius), Greek god, I-471a; Index p. 138a
 Aesop, Greek writer, XII-145a
 aestivation, of animals, II-208b
 affidavit, legal term, X-109b
 Afforestation VI-1a
 Afghanistan III-2b; *map* III-229
 Africans I-2b; hounds, IX-191a
 Africa III-3b; *map* III-5; colonization of, X-105b; diamond mining, III-131a; gold mining, VII-212a; *see also* South Africa, East Africa, North Africa, West Africa, French Africa.
 African Art XII-4a; *illus.* XII-363
 African Languages IV-5b
 Africans: negro, I-337a, 392b; Saharan, I-424b; slavery, VII-400a; X-412a
 Afrikaans language I-442b; IV-171a
 Afrikaner cattle VI-74a
 Afrikan(d)ers, *see* South Africans
 Agag, Amalekite king, Index p. 123a
 Agama, lizard, II-2a
 Agamemnon, Greek hero, I-208a; XII-194b; Index p. 137b
 agar agar, seaweed substance, XI-266a
 Agate, mineral, III-6a; *illus.* III, opp. p. 288
 Agathon (5th cent. B.C.), Greek tragic poet, XII-186b
 age: human, XI-284b; animal, II-187b; Index p. 144; plant, II-410a
 Agent (business representative) VII-10a, 374b, 322b
 Age of Reason (18th cent.) XII-164b
 aggregates, in concrete making, VIII-89a
 Agincourt, battle (1415), X-200b
 Agnes, St., Index p. 133b
 Agnostic I-4b
 Agouti, rodent, II-2b
 Agricola, Georg (1495-1555), German chemist, VII-98a
 agricultural colleges VI-15b
 Agricultural History VI-3b

- Agricultural Holdings Act VI-258b
 Agricultural Improvers VI-7b
 Agricultural Land Service VI-290b
 Agricultural Measurements VI-9a
 Agricultural Shows VI-12a
 agricultural research VI-373a
 agricultural tools VI-140a, 220a, 474a
 Agricultural Training VI-14b
 Agricultural Wages Board VI-137a, 290b
 Agriculture and Fisheries, Ministry of, VI-289b
 Ahab, King of Israel (9th cent. B.C.), I-42b; Index p. 123a
 Ahaggar, Algeria, III-9b
 Ahasuerus, King of Persia, Index p. 123a
 Ahaz (8th cent. B.C.), Hebrew king, V-238b; Index p. 123b
 Ahura Mazda, Persian god, I-198a, 495a
 Aidan, 7th cent. Celtic bishop, I-124a
 aigrette (egret), bird, II-206b; VI-146a
 ailerons, wing flaps of aeroplane, IV-4a, 154a
 Ainus, peoples, N. Japan, I-268a, 419a
 air III-34a
 airborne forces X-309b
 air brakes, railway, IV-57b
 air-conditioning VIII-472a
 aircraft: aeroplane, IV-3a, 151b; airship, IV-20a; amphibian, IV-396b; autogiro, IV-358a; balloon, IV-35a; glider, IV-171b; helicopter, IV-377a; rotorcraft, IV-377a; tanker, IV-166a
 aircraft, brakes, IV-10b; design, VIII-3a; IV-3b; model, IX-321a; propellers, VIII-337b; weather conditions, IV-102a
 aircraft: military, X-55b, 153a; passenger, IV-14b, 97a
 Aircraft, Special Uses, IV-11a; fire fighting, IV-172b; military transport, X-459a; refuelling tankers, IV-166a
 Aircraft-Carrier X-6b, 401a; *illus.* X-383
 Aircraft Engines IV-7a; VIII 4a; rocket propulsion, VIII-376a; turbo-jet, VIII-181b
 Aircraft Industry VII-10b; materials, VIII-4a
 Aircraft Instruments IV-158b; VIII-16b, 194a; artificial horizon, IV-5a
 Aircraft Racing IX-9a
 Aircraft Take-Off IV-12a, 17b; landing, IV-292a
 Aircrew IV-13a, 3a; bomber, X-56b
 Air Defence X-8a; Battle of Britain, X-50b
 Air Displays IX-11a
 Air Forces, World, X-9a; Royal Air Force, X-376b
 Air Force Training X-10a
 Airgraph IV-14b
 air hostess IV-14a
 Air-Liner IV-14b
 airlines IV-97a
 Air Mail IV-16b, 14b
 Air Ministry X-12a, 377a
 air navigation IV-289b
 air pilot IV-13a
 air-pockets III-34b
 Airport IV-17b
 Air Raid X-12b, 8a, 88b
 Air Ranger IX-255a
 air routes, civil aviation, IV-97a
 Air Scout IX-87a
 airscrew, propeller, VIII-338b; IV-8b
 Airships IV-20a, 155b
 airstream, aerodynamics, VIII-217b
 air survey VIII-427a; instruments, VIII-430a
 Air Training Corps X-378a
 Air Warfare, History of, X-14b
 Aix-la-Chapelle (Aachen), Germany, V-82b; XII-169a
 Aix-la-Chapelle, Peace of (1748), V-293b
 Ajanta rock temples, India, XII-208a; *illus.* I-241
 Ajax, Greek hero, Index p. 138a
 Akbar (1542-1605), Mogul emperor, V-4b
 Akhnaten (Amenophis IV c. 1391-1350 B.C.), King of Egypt, V-5a; XII-124b
 Akkad, Mesopotamia, I-457a, 21a
 Alabama, state, U.S.A., III-451b, 453a
 Alabama, warship, X-34a
 alabaster VII-278a; sculpture, XII-413a
 Aladdin, fairy tale, XII-19a
 Alaric (d. c. 410), Gothic king, I-202a
 alarm mechanism, clocks, VIII-82a
 Alaska, terr., U.S.A., III-6b; *map* III-318
 Alaskan Highway IV-21b
 Alawis (Nasaris), Syrian sect, I-464b
 Al Azhar University, Cairo, X-476a
 albacore, fish, II-258b; VI-55a
 Albania III-7b; *map* III-160
 Albanians I-5a
 albatross, bird, II-315b; *illus.* II-14
 Albemarle, Duke of (1608-70), *see* Monk
 Albert, lake, Belgian Congo/Uganda, III-316b
 Albert, Prince Consort (1819-61), V-6b, 459a
 Alberta, province, Canada, III-70b; *map* III-69
 Albert canal, Belgium/Holland, III-50b; *illus.* IV-80
 Albert the Great (1193-1280), scholastic philosopher, V-15a, 141b
 Albert Herring, opera, IX-349b
 Alberti, Leon Battista (c. 1404-72), Italian artist and writer, V-7b; XII-341a
 Albigenes, religious sect, V-141a
 albumen (white of egg) XI-130a
 Alcaeus of Lesbos, 7th-6th-cent. B.C. Greek poet, XII-187b
 Alcaeus of Messene, 3rd-cent. B.C. epigram writer, XII-135b
 'Alcan' Highway (Alaskan-Canadian Military Highway) IV-21b
 Alcan project (Kitimat Hydro-Electric Scheme) VIII-243a
 Alcestis, character in Greek mythol., Index p. 138a
 alchemy (medieval chemistry) VII-97b
 Alcibiades (c. 450-404 B.C.), Athenian statesman and soldier, V-8b
 Alcman, 7th-cent. B.C. Greek poet, XII-307a
 alcohol, in beer brewing, XI-2a; VII-40a; industrial, VII-235a; in perfume making, XI-354a; in whisky distilling, VII-467a; in wines and spirits, XI-492b
 alcohol distilling VII-160b
 Alcuin of York (735-804), English scholar, V-82b
 alcyonarians, sea animals, II-98b
 Alcyone, character in Greek legend, II-231a; Index p. 138a
 Aldebaran, star, III-109b
 Aldeburgh Redwing, sailing craft, IX-183b
 Alder, first woman, Norse mythol., I-343a
 alder, tree, VI-456a; II-96b, 380b
 alderman X-242b
 alder moth II-330b, 290b
 Alderney I., Channel Islands, III-81a
 Aldershot, Hants, army training centre, X-42b; tattoo, IX-318a
 aldis signalling lamp IV-233a
 ale-house IV-202b
 Aleppo (Haleb), Syria, III-430a; *map* III-17
 Ales and Beers XI-2a
 Aleutian Islands, N. Pacific Ocean, III-8b; in the Battle of Midway, X-265a
 alewife, fish, II-270a
 Alexander I (1777-1825), tsar of Russia, X-279b
 Alexander II (1818-81), tsar of Russia, V-8b; assassination, X-47a
 Alexander III, pope (1159-81), V-171a
 Alexander VI (Rodrigo Borgia 1431-1503), pope, V-51a, 401b
 Alexander the Great (356-323 B.C.) V-9a; building of Alexandria, IV-322b; diving experiments, IV-127a; funeral carriage, IV-86a; *map* of empire, Index p. 52
 Alexander of Tunis, Harold Rupert Leofric George, Earl (1891-), British soldier, X-144a
 Alexander, Samuel (1859-1938), British philosopher, I-363a
 Alexandra, Queen (1844-1925), I-137a
 Alexandretta, Sanjak of, Turkey, III-430b
 Alexandria, ancient: Christianity in, I-130a; foundation of, IV-322b; library of, IV-224b; lighthouse (Pharos), XII-476a; *illus.* XII-475; university, X-475b
 Alexandria, port, Egypt, III-151a
 alexandrine line, poetry, XII-470b
 alfalfa (lucerne), plant, VI-263a
 Alfieri, Count Vittorio (1749-1803), Italian dramatist, XII-220b
 Alfred (849-99), King of the West Saxons, V-10b; translations from Latin, XII-460a
 Algae, plants, II-3a, 283b; seaweeds, II-373b
 Algebra VIII-6a; IV-260b
 Algeciras, port, Spain, III-190a
 Algeria III-9a; *map* III-5; French invasion of, X-105b
 al-Hamadani (969-1008), Arabic writer, XII-19b
 Alhambra, palace, Granada, Spain, III-195b; XII-277a; *illus.* I-327
 Alhambra music-hall, London, IX-342b
 al-Hariri (1054-1122), Arabic poet, XII-19b

Alice's Adventures in Wonderland, by Lewis Carroll, V-72b; XII-70a
 alimentary (digestive) system XI-100a
 Ali Pasha (1741-1822), Albanian leader, I-5a
 Alkalies, in chemistry, VII-12b
 alkyd, synthetic resin, VII-219b
 Allah, God, Moslem religion, I-259b
 Allahabad, India, III-179b; *map* III-229
 Allegheny *mts.*, Appalachian *mts.*, N. America, III-14a
 Allegory XII-7a; fable, XII-145a; parable, XII-329a
 allemande, dance, XII-98a
 Allen, bog of, Irish Republic, III-300b
 Allergic Diseases XI-3a
 allergy XI-3a
 Alleyn, Edward (1566-1626), English actor, IX-6b
 Allfather, Norse mythol., I-343a, 345a
All for Love, John Dryden, V-147b
 All Hallows Day I-176a; IX-473b
 alliance X-487a
 alligator, crocodile, II-107a
 alligator terrapin, tortoise, II-441a
 alliteration, in poetry, XII-43a, 470a
 Allotments VI-17a
 Alloys VIII-6b; corrosion, VIII-96b; gold and silver, VII-208b
 All Saints' Day I-123b, 176a; eve of (Hallowe'en), IX-473b
 All Souls College, Oxford, X-306b
 All Souls' Day I-123b, 193a
 alluvial mining VII-294b; gold, VII-211a
 alluvium, sedimentary deposit, III-378b
 Alma Ata, Central Asia, U.S.S.R., III-250a; *map* III-459
 Alma River, battle (1854), X-118a
 Almack's club, London, IX-248a
 Almaden, Spain, mercury mine, VII-292b
Almagest, catalogue of stars, III-24a
 Almagro, Wigo de (c. 1475-1538), Spanish adventurer, V-365b, 366a
Almanac, Nautical, IV-295b, 289b
 almanacks, astrology, I-44b
 almanacs IV-358a; *see also* calendar
 almond paste XI-430b
 almonds VI-296a
 Alms-house X-17b
 al-Mutanabbi, 10th-cent. Arabic poet, XII-19b
 aloe, plant, II-246b; *illus.* II-245; Mexican, I-55a
 alpaca, llama, II-252a
 alpenrose, plant, II-4b, 6a
 Alphabet IV-22a, 221b, 429b; I-364a; Roman, IV-24a; XII-240b; *see also* under each language
 alphabets: Braille, IV-57a; deaf, IV-119b; deaf-blind, IV-120a; manual, IV-119a
 alpha-particles, helium nuclei, III-37b
 Alpheus, river, Greece, IX-347b; I-207b
 alpine accentor, bird, II-427b
 Alpine Club IX-332b; III-161b
 alpine hare II-195a
 alpine house, greenhouse, VI-203a, 383a
 Alpine Plants II-4b

Alpine race I-392a
 alpine swift, bird, II-418b
 Alps III-10a; *map* III-160; Föhn wind, III-168b; mountaineering, IX-331a, 330b; passes, IV-280a
 Alsace-Lorraine, region, France, III-174a
 alsike, clover, VII-262b
 Altai *mts.*, Outer Mongolia, III-386a; *map* III-459
 Altamira cave-drawings, Spain, I-448b
 Altar XII-8b
 altar-pieces XII-9a, 151a
 Altdorfer, Albrecht (c. 1480-1538), German painter, XII-171a; *illus.* XII-173
 Alternating Current (A.C.), electricity, VIII-9a; cables, VIII-50a; in electric motors, VIII-135b
 alternator (alternating current generator) VIII-131a, 123a
 altimeter, aircraft instrument, IV-5a
 Altis, sacred grove, ancient Greece, IX-348a
 altitude, influence on temperature, III-91
 altitude contours, on maps, IV-257b
 altocumulus, cloud type, III-94a, 363b
 altostratus, cloud type, III-94a
 Alum, mineral, VII-14b
 aluminium, metal, III-283b-285b; as-saying, VII-21a; fireworks, IX-228a; furniture, VII-197b
 aluminium alloy VIII-203a; strength of, *table*, VIII-47
 Aluminium Industry VII-15a; extraction, VIII-283a
 Alva, Duke of (1508-82), Spanish general, V-362b, 486b
 alveoli, of lungs, XI-381b
 alyssum, rock-garden plant, VI-381a
 Amalekites, nomadic peoples, Old Testament, Index p. 123b
 Amalienborg, palace, Copenhagen, Denmark, III-112b
 Amanulla, Afghan king (1919-29), I-4a
 amaryllidaceae, plant family, Index p. 69
 amaryllis, greenhouse plant, VI-217a
 Amaterasu, Japanese sun-goddess, I-434a
 Amateur Athletics Association of Britain (A.A.A.) IX-32b, 33b
 Amateur Football Association IX-28a
 amazon ant, insect, II-21b
 Amazon basin, South America, III-416a, 57a
 Amazon River, Brazil, III-11a; *map* III-415
 Amazons, legendary women-warriors, I-5b; Index p. 138a
 Ambarvalia, purification ceremony, IX-284a
 ambassador X-163a
 Amber III-12a
 ambergris, product of sperm whale, VI-484b; XI-352b
 Ambrose, St. (c. 340-97), bishop of Milan, V-24a; XII-196b
 ambrosia, *see* bee-bread; nectar
 ambrosia beetle II-39b
 ambulance aircraft IV-69a
 ambulatory, of church, XII-9a, 87b

Amelia, Henry Fielding, V-166b
 Amenophis III (1405-1371 B.C.), King of Egypt, V-5b
 Amenophis IV (Akhnaten c. 1391-1350 B.C.), King of Egypt, *see* Akhnaten
 Amen-Re, Egyptian sun god, *see* Amon-Re
 America, U.S. racing yacht, IX-14a
 America: colonization of, X-103b, 61b; continental drift theory, III-110b; discovery of, IV-143a; origin of name, III-317b; racial types, I-392b *see also* Central America; North America; South America; United States of America
 American Art (U.S.A.) XII-9b
 American blight, aphid pest, VI-26b
 American civilizations, ancient, I-23b; *chart* I-22
 American Civil War X-19a; *Alabama* dispute, X-34a; blockade of Southern ports, X-55a
 American Constitution X-20a; democracy, X-130a; federation, X-150b; local government, X-252a; Monroe Doctrine, X-274a; police forces, X-320b; political parties, X-332a
 American Education (U.S.A.) X-22a
 American (English) Language IV-25a
 American Federation of Labour, trade union, VII-455a
 American Football IX-12b
 American-Indian Art XII-12b
 American Indian Languages IV-26b
 American Indian names IV-286b
 American Indians, ancient civilizations, I-23b
 American Indians, Central and South, I-6a, 487b; work of Las Casas, V-264b
 American Indians, North, I-9b; early trade with English, VII-233b
 American Literature (U.S.A.) XII-14b, 417b; Emerson, V-156b; Longfellow, V-282a; Mark Twain, V-452b; Whitman, V-481a
 American Negroes I-13a; colour problem, X-107b; Ku Klux Klan, X-407b; slavery, X-412a; VII-400b; Spirituals, XII-297a
 American organ IX-401b
 American student societies (Fraternalities) IX-475b
 Americans (U.S.A.) I-15a; *see also* United States of America
 American Trails IV-28a
 American War of Independence X-25b; V-470a
 America's Cup, The, IX-14a
 Amerind, Amerindian, *see* American Indians
 Amethyst, precious stone, III-12b
 Amherst's pheasant II-318a
 Amidha, Buddhist saint, I-83a
 Amiens, Treaty of (1802), X-279b
 ammeter, measuring instrument, VIII-124a
 Ammonia, chemical, VII-16b, 6a; as a refrigerant, VIII-257a
 ammoniacal liquor VIII-179a
 ammonite, prehistoric shellfish, III-352a; *illus.* III-171
 Ammonites, Semites, Index p. 123b

ammonium chloride (sal-ammoniac), in batteries, VIII-20a
 Amoeba, single-celled animal, II-6a, 8a
 Amon-Re (Amon), Egyptian sun god, V-5b; temple of, I-470a, *illus.* I-469
 Amorites, Semitic peoples, Index p. 123; Amorite dynasties, I-57a
 Amos, Hebrew prophet, Index p. 123b
 ampere, unit of measurement, electricity, VIII-128a, 273b
 Amphibia, animals, II-7b; ancestry of, II-256b; III-97a
 amphibian aircraft IV-396b
 Amphibious Vehicles IV-29a
 Amphibious Warfare X-26b
 Amphipolis, ancient city-state, Greece, V-358a, 445b
 amplifier VIII-448a; *diag.* VIII-462
 amplitude, sound, III-410b, 475a
 amplitude, of vibrations, VIII-473b
 amplitude modulation (A.M.) VIII-357b
 amps, *see* ampere
 Amsterdam, *port*, Holland, III-12b
 Amu Dar'ya (Oxus), *river*, Uzbekiskaya, U.S.S.R., III-460a
 amulet, charm, I-451b
 Amun, Egyptian god, *see* Amon-Re
 Amundsen, Roald (1872-1928), Norwegian explorer, V-11b
 Amur, *river*, U.S.S.R./Manchukuo, III-387a; *map* III-459
 amusement parks, *see* fairs
 Ana-Baptist, religious sect, I-64a
 anaconda, snake, II-52a
 anaemia XI-26b, 97a
 anaerobic respiration II-351a
 Anaesthetics XI-4a
 anagram, puzzle, IX-393b
Analects, selected sayings of Confucius, V-101a
 analyser, distillation apparatus, VII-162a
 Ananda pagoda, Pagan, Burma, III-238a
 anapaestic foot, poetry, XII-468b
 Anarchy X-28a; Nihilists, X-47a
 anastigmat lenses VIII-57b
 Anatolia, *plateau*, Turkey, III-447a; I-478a-479a
 Anatomy: human, XI-4b; animal, II-8a
 Anaxagoras (5th cent. B.C.), Greek scientific philosopher, V-358a
 Ancestor Worship I-18b
 Anchises, in Greek legend, Index p. 138a
 Anchors VIII-10b
 anchovy, fish, II-207b
 Ancient Civilizations I-20b; *chart*, Index p. 2; agricultural history, VI-3b
Ancient Mariner, the *Rime of the*, Coleridge, V-98b
 Andaman Islanders I-24a
 Andaman Is., Bay of Bengal, III-231a; *map* III-322
 Andean regions: of Bolivia, III-55a; Ecuador, III-147b; Venezuela, III-462b
 Andersen, Hans Christian (1805-75), Danish story-teller, V-12b; I-172b
 Anderson shelter X-89a
 Andes mts., of S. America, III-414b;

illus. I-237; ice-age, III-223b; mountaineering, IX-333a; passes, IV-281a
 Andorra, *state*, central Pyrenees, III-355a
 Andover, R.A.F. Staff College, X-431a
 Andrew, St., apostle and patron saint of Scotland, V-13a, 358b; I-427b; Index p. 133b
 Andrewes, Lancelot (1555-1626), English divine, XII-413b
 Andromache, character in Greek legend, Index p. 138a
 Andromeda, character in Greek mythol., I-207a; Index p. 138a; constellation, III-309b; *illus.* III-456, 107, 109
 anemograph, pressure-tube, meteorological instrument, VIII-289a
 anemometer, meteorological instrument, VIII-288b
 anemone, plant, II-4b, 285a; Index p. 64
 anemone, sea, II-367b
 anemone-fish II-372b
 aneroid barometer VIII-290b
 Angel I-25a
 angel-fish II-87a; *illus.* IX, opp. p. 32
 Angelico, Fra (c. 1386-1455), Italian painter, V-13a; *illus.* XII-292
 angel-shark, sea creature, II-385b
 Angkor Wat, temple, Angkor Thom, Indo-China, I-249b
 angle, geometry, VIII-186b
 angle of incidence, aircraft wing design, IV-153a
 Angler-fish II-10b
 Anglesey, I., Wales, III-470a; I-399b; copper mining, VII-297a
 angle shades moth II-291a
 Anglic, Zachrisson's, artificial language, IV-208b
 Anglican Church, *see* Church of England
 Angling, Freshwater, IX-15a
 Angling, Sea, IX-18a
 Anglo-Boer war, *see* South African War
 Anglo-Catholics I-125b
 Anglo-Egyptian Sudan, *see* Sudan
 Anglo-Saxon architecture XII-80a
 Anglo-Saxon art XII-255b, 46b
Anglo-Saxon Chronicle XII-192b, 131a
 Anglo-Saxon language IV-138a, 430a, 219a; script, IV-181a
 Anglo-Saxon literature XII-130b
 Anglo-Saxons, Germanic people, I-77a, 78a; kingship, X-120a; law, X-231b; racial features, I-390a
 Angola, Portuguese W. Africa, III-13b; *map* III-5
 angora goat VII-220a
 angora rabbit VI-370b
 ångström, unit of measurement, VIII-402b
 Angurboda, giantess, Norse mythol., I-345a
 aniline dyes VII-101b
 aniline poisoning VIII-379a
 Animal and Plant Distribution II-11a
 animalcule, single-celled creature, II-336a

animal dances, folk dancing, IX-232a; *illus.* IX-238
 Animal Diseases VI-18b; prevention of, VI-16b, 138b; tropical diseases, VI-23a, 466b
 Animal Farming, Tropical, VI-22a; cattle breeds, VI-75a
 Animal Language II-12b
 animal monsters, mythological, I-335b
 animal parasites VI-314b
 animal pests VI-325b; vermin, VI-474b; XI-229a
 Animal Territory II-15a
 animals: anatomy, II-8a; breeding, VI-426b; classification, II-88b; coloration and camouflage, II-70b; display, II-13a; growth, II-187a; language, II-12b; length of life, II-187a; movement, II-187a; nutrition, II-293b; reproduction, II-344a; respiration, II-348b; senses, II-380b; territory, II-15a; *table*, Index p. 144.
 animals, performing, IX-366b; pets, IX-369a
 animals, prehistoric, III-351a; II-137b
 Animism, primitive religion, I-27b
 anise, plant, VI-302b
 aniseed, seed, VI-302b
 Ankara, Turkey, III-448a; *map* III-17
 ankle bones XI-32a
 Anna, prophet, New Testament, Index p. 123b
Annals, history of Rome by Livy, V-279b; XII-191b
 Annam, *terr.* Indo-China, *see* Viet-Nam
 Annas, Jewish high priest, Index p. 123b
 Anne, Mother of the Virgin, Index p. 133b
 Anne (1665-1714), Queen of England, V-294b
 annealing, of metals, VIII-202b; in coining, VII-120a; gold, VII-208b
 Anne of Cleves (1515-57), 4th wife of Henry VIII, V-220a
 Anno Domini (A.D.) III-69a
 Anno Urbis Condita (A.U.C.), from the foundation of Rome, III-69a
 Annual Plants VI-24b
 Annual Register (record of year's events) IV-358b
 annuity, *see* insurance; pensions
 annulment, divorce law, X-134b
 Annunciation, Christian feast-day, I-123a
 'Annunciation, The': by Fra Angelico, *illus.* V-13; by Donatello, *illus.* V-142; by Piero della Francesca, *illus.* V-363
 Annunzio, D'. Gabriele (1863-1938), Italian writer, XII-220b
 anoa, buffalo, II-58a
 anode, positive pole, electricity, VIII-446a, 66b
 anodizing, of metals, VIII-141b, 423b
 anointing, at coronations, X-114b; the sick, I-417b
 anole, lizard, II-218a
 Anselm, St. (1033-1109) V-14a
 Anson, George, Baron (1697-1762), V-14a; voyage round the world, IV-91b
 Antaeus, giant, Greek mythol., I-148b
 Antarctic, south polar region, III-345b, 346b; exploration, III-349a; V-105b

- Antarctic Ocean III-321a, 347a; *map* III-323
- ant-bear (aard-vark) II-1a
- Ant-Eater, mammal, II-16b; banded, II-262a; scaly (pangolin), II-307b; spiny (echidna), II-128b
- Antelope II-17a; of N. America, II-331a
- Antelope I., Great Salt Lake, U.S.A., III-202b
- antennae, insect feelers, II-381b, 277b; *illus.* II-221
- Anthem, of English Church, XII-17a
- Anthologies XII-17b
- Anthony, St. (3rd cent.), I-428b, 324b
- anthracite, coal, III-96b; VIII-172b; mining process, VII-110b
- anthrax, animal disease, VI-19a, 23a
- anthropology (study of man) I-390a; XI-414b
- anthropometry, criminal detection, X-83b
- anti-aircraft gun X-45b
- antibiotic drugs XI-126b
- Anti-Christ (Dadidjah), Moslem religion, I-224b, 431a
- anticyclone, weather, III-478b
- anti-freeze, chemical, VIII-71a
- Antigone, character in Greek legend, Index p. 138a
- Antigonus (d. 301 B.C.), governor of Asia Minor, V-372b
- Antigua, I., West Indies, III-484b; *map* III-485
- Antilles, Is., West Indies, III-484b; *map* IV-485
- Antioch, Syria, Index p. 123b
- anti-personnel mine X-58b
- antiphon, chant, XII-345a
- antiphonal singing XII-284a
- antipodean juggling IX-2a
- Antipodes Is., South Pacific Ocean, III-39a
- antirrhinum (snapdragon), plant, VI-54a, 47a; Index p. 68
- anti-semitism I-277a
- Antisepsis and Asepsis (prevention of germ infection) XI-7b
- anti-tank gun X-46a; mine, X-58b
- antithesis, figure of speech, XII-148a
- antler-moth II-291a
- antlers, horns, II-212a
- Antofagasta, port, Chile, III-85b; *map* III-415
- Ants II-18a; garden pests, VI-251a; household pests, XI-230b
- Ants, Habits of, II-20a
- ants, white (termites), II-424a
- Antwerp, port, Belgium, III-50a
- Anu, Babylonian god, I-63a
- Anubis, Egyptian god, I-418b; *illus.* I-157
- anus, opening of alimentary canal, human body, XI-102a
- aorta, heart artery, XI-28a
- apartheid, segregation policy, V-418b; X-107a
- Apennine mts., Italy, III-241b; *map* III-160
- Apennine Tunnel IV-29a
- ape man I-182a, 166a
- Apes II-22a; I-165b; performing, IX-368a
- Aphid Pests VI-25b; control of, VI-184b
- Aphis, insect, II-23b
- Aphrodite, Greek goddess, I-201a, Index p. 138a; Temple of, I-134b
- Apicius (1st cent. A.D.), author of cookery book, XI-375b
- Apocalypse, *see* Revelation, Book of
- Apocrypha, sacred writings, I-421a; Index p. 123b
- Apollo, Greek god, I-201a, 144a, 329a; Index p. 138a
- Apollonius of Rhodes, 3rd-cent. B.C. Greek poet, XII-188b
- Apollon, Jew of Alexandria, New Testament, Index p. 124a
- Apollyon, underworld, Index p. 124a
- apoplexy, disorder, XI-325b
- apostles, of Christ, I-120a, 367a
- Apostles' Creed I-116a, 121a
- Apostolic Succession, in Christian Church, I-118a
- apostrophe, device of speech, XII-148b
- apostrophe, punctuation, IV-339b
- Apothecaries' Company VII-106b
- Appalachian Mountains, U.S.A., III-14a; *map* III-318; coal mines, VII-118a
- Appeal X-29b; Courts Martial Appeals Court, X-117a; Lords of, X-219a; in Scottish law, X-391b
- Appert, François, 19th-cent. French confectioner, VII-77b
- Appian Way, Italy, IV-29b
- apple moth II-240a
- Apples VI-27b; cider-making, VII-104b; fruit and seeds, II-169b; grading of, VI-206b; pests, VI-28b; *illus.* VI, opp. p. 288
- Appleton, Sir Edward (1892-), English physicist, VIII-347a
- appliqué, needlework, XI-319a
- Appomattox, Virginia, U.S.A., X-20a
- Apprenticeship VII-17a; in building industry, VII-68b; medieval, VII-143a
- approach control zone, airfield, IV-381b
- Approved Schools X-31b
- Approved Societies, *see* Friendly Societies
- Apricots VI-30a; II-169a
- April Fool's Day IX-473b
- Apuleius, Lucius (2nd cent. A.D.), Roman writer, XII-240a
- Aquae Sulis, Roman baths, IX-411b
- aqua fortis (nitric acid) VII-6a
- Aquamarine, mineral, III-15a
- aqua regia, acid, VII-5b
- Aquarium IX-19a; *illus.* IX, opp. p. 32
- aquatint, printing process, XII-138b, 141a
- aqueduct VIII-478b; in canal-building, IV-81b; *illus.* VIII-61; Pont du Gard, S. France, IV-60b
- Aquila and Priscilla, Jews of Pontus, New Testament, Index p. 124a
- Aquinas, St. Thomas (c. 1225-74), V-14b; theory of justice, X-222a
- Arabab, Sea of (Dead Sea), Israel/Jordan, III-122b
- arabesque, pattern, XII-212a
- Arabia III-15a
- Arabian desert, Egypt, III-149b
- Arabian horse IX-287a
- Arabian Nights, tales, XII-18b; I-172b
- Arabic architecture (Islamic) XII-211b, 21a, 107a
- Arabic art (Islamic) XII-211b
- Arabic, gum, VII-218a
- Arabic Language IV-30a
- Arabic Literature XII-19a
- Arabic music XII-319a
- Arabic numerals IV-114b
- arabis, rock-garden plant, VI-381a
- Arab League I-30a
- Arable Crops VI-31a
- Arabs I-28b; I-religion, 259b; in history of medicine, XI-304a, 426a, 309b; nationalist movement, V-267b; X-406a; perfume-making, XI-353a; influence in Persia, XII-338a, 340b; Moors, I-326b; Saharan Arabs, I-426a
- Arachne, character in Greek mythol., Index p. 138a
- arachnida, class of animals, II-399b
- aragonite, mineral, III-291b
- Aralus Plate, ocean racing challenge cup, IX-347a
- Aramaic language IV-183b, 23a
- Aran Is., Republic of Ireland, III-237a
- Arapesh tribes, New Guinea, XI-415a
- Araphao, N. American-Indian tribe, I-11a, 140a
- Ararat, country, Old Testament, Index p. 124a
- Araucanians, Indian tribe of S. America, I-9b
- Arawaks, Indian tribe of S. America, I-8b, 488a
- Arbitration X-32b; Hague Tribunal, X-181b; industrial, X-33a, 492a
- arboretum, tree-garden, VI-34a
- Arboriculture VI-33a
- Arcadia, in pastoral literature, XII-334b; V-416b
- Arch XII-20a; construction, VIII-48a, 38b; Roman, XII-20a; Romanesque, XII-385a; vaulting, XII-463a
- Arch, Joseph (1826-1919), trade unionist, VI-137a
- arch, triumphal, XII-275b, 380b
- Archaeology I-31a; Knossos, XII-229a; Pompeii, XII-348b; Tutankhamen's Tomb, XII-461a
- archangel I-25a-27a
- Archangel, port, U.S.S.R., III-18a; *map* III-459
- archbishop, in Church of England, I-126a; *illus.* I-125
- arch bridges IV-65a, 60b
- archdeacon, in Church of England, I-127b
- Archer, Frederick Scott (1813-1857), British photographer, VII-339a
- Archer, Thomas (1668-1743), British architect, XII-41b
- Archer-fish II-25a; *illus.* II-24b
- Archers, Royal Company of, IX-22a
- Archery (toxophily): as sport, IX-20a; in war, X-489b, 200b, 228a
- Archimedes (c. 287-212 B.C.), Greek mathematician and scientist, V-16a
- Archimedean screw VIII-382b
- Architecture XII-21a, 100a; orders of, XII-316a; public buildings, XII-368a

architecture, *see* baroque; church; classical; English Church; Georgian; Gothic; Gothic revival; Greek; medieval; modern; Norman; Palladian; Regency; Roman; Romanesque
 architecture, *see also* building, principles of; building construction; building industry
archon, officer of state, ancient Athens, I-206a
 arc lamp VIII-224a, 121b
 Arctic, north polar region, III-345b
 Arctic exploration III-348b; Amundsen, V-11b; Cook, V-106a; Franklin, V-170b
 Arctic Ocean III-321a, 345b, 348a; *map* III-346
 Arculf, 7th-cent. French bishop, I-145b
 Ardennes, mts., Belgium, III-49b; *map* III-173
Areopagitica, Milton, V-311a
 Areopagus, Council of, ancient Greece, V-357b; Index p. 124a
 Areopagus, hill, Athens, III-33b
 Ares, Greek god, I-201a; Index p. 138a
 Arethusa, nymph, Greek mythol., Index p. 138a
 argali, wild sheep, II-386b
 Argentina, S. America, III-18b; *map* III-415; Inca civilization, I-235a
 Argentines I-34a
 argentine, metal, VII-396b
 argon, gas, III-37a
 argonaut (paper nautilus), octopus, II-297a
 Argonauts, heroes, Greek mythol., I-208a; Index p. 138a
 Argos, city-state, ancient Greece, I-204a
 Argus, monster, Greek mythol., I-335a
 argus, brown, butterfly, II-52a
 argus, Rheinhardt's bird, II-311b
 argus, Scotch, butterfly, II-56a
 argus-pheasant II-311b
 aria, song, XII-426a; in opera, XII-309b; IX-349a
 Ariadne, character in Greek mythol., I-207b; Index p. 138a
 Ariel, fairy, I-171b
 Arimathea, Joseph of, Index p. 124a
 Ariosto, Ludovico (1474-1533), Italian poet and dramatist, XII-108a, 219b
 Aristarchus of Samos (310-230 B.C.), astronomer, III-23a
 aristocracy, *see* social classes
 Aristogeiton, 6th-cent. B.C. Greek patriot, X-46b
 Aristophanes (c. 450-c. 385 B.C.), Greek dramatist, V-16b
 Aristotle (c. 384-322 B.C.), Greek philosopher, V-17a; *Poetics*, XII-244b, 147b; *Rhetoric*, XII-374b; on tragedy, XII-456b, 109b
 Arithmetic VIII-12b; counting instruments, IV-115a; history of, IV-112b
 Arius (d. A.D. 335), priest of Alexandria, V-22a
 Arizona, state, U.S.A., III-454a; *map* III-451
 Arizona ruby III-180b
 Arjun, 17th-cent. Sikh religious leader, I-440b

Ark of the Covenant, Israelite shrine, I-469b
 Arkansas, state, U.S.A., *map* III-451
 Arkhangelsk (Archangel), port, U.S.S.R., III-18a; *map* III-459
 Ark Royal, galleon, IV-31b
Ark Royal, aircraft carrier, X-7a; IV-31b
 Arkwright, Sir Richard (1732-92), English inventor, V-18b; VII-484b
 armada, *see* Spanish armada
 Armadillo, mammal, II-25a
 Armageddon, mt., Revelation, Book of the, Index p. 124a
 armaments, *see* artillery; weapons, hand
 armature, of electric motor, VIII-133b
 armed neutrality X-300b
Armée de l'Air, French air force, X-9b
 Armenia, state, U.S.S.R., III-20a; *map* III-75; church of, I-116a
 Armenians I-36a
 Armies, World, X-34a; conscription, X-112b; French Foreign Legion, X-162a
 Armistice X-36a
 Armour X-36a
 armoured division, army, X-42a
 armoured vehicles, *see* tanks
 armour-piercing bomb X-57b
 arms, heraldic, IV-184a, 205a
 Army, British, X-39a; conscription, X-112a; Court martial, X-116a; feudal army, X-153a; mutiny, X-277b; staff, X-430b; territorials, X-450a; uniforms, X-471a; War Office, X-488a
 Army Training X-42a
 army worm II-291a
 Arnhem, Battle of (1944), X-310b
 Arno, river, Italy, III-167a
 Arnold, Matthew (1822-88), English poet, V-19a
 Arnold, Thomas (1795-1842), headmaster of Rugby school, V-19b
 A.R.P. (Air Raid Precautions) X-88b
 Arp, Hans (b. 1888), sculptor, XII-268b
 arquebus, gun, IX-251b; *illus.* X-490
 arras tapestry VII-426b
 arrest, police, X-327b
 arrowhead, aquatic plant, VI-479b
 arrowroot, tropical plant, VI-467b; as food, XI-49a
 arrows, weapon, X-489a; I-383a
 arroz, rice dish, XI-383b
 Arsenal football team IX-27b
 Art, general principles, XII-24b
 art, visual: *see under* drawing, engraving, lithography, painting, sculpture. *See also under* peoples, as Dutch Art, Italian Art, &c. *See also under* styles and periods, as Augustan age; baroque; classical; Gothic; industrial; medieval; modern; pre-Raphaelite; rococo; Romanesque
 art academies XII-1b
 Artaxerxes, Persian rulers, Index p. 124a
 Artemis, Greek goddess, I-201a; Index p. 138a
 arteries, of human body, XI-28b; hardening of, XI-29a
 artesian well III-483b
 Art Galleries XII-27b, 463a

arthritis, disease, XI-32a, 345a
 Arthur, King (5th-6th cent. A.D.), I-37a, 144b; XII-29a
 Arthurian Legend I-37a
 Arthurian Literature XII-29a
 Artichokes VI-34b, 114b
 articles of association, for limited companies, VII-267a
 Articulated Locomotives and Rail Coaches IV-32a
 articulated lorry IV-277b
 Artificial Fertilizers VI-35b, 280a, 8b
 artificial horizon, aircraft navigational instrument, IV-5a
 artificial insemination (A.I.) VI-427b, 75b
 artificial respiration XI-168b
 artificial silk VII-372a
 Artillery X-43b; air gunnery, X-11b; in Hundred Years War, X-207a; naval guns, X-293a
 Artists' Rifles X-367b
 art schools, *see* art academies
 Arts Council IX-22a, 403a
 Aruba I., West Indies, III-484b
 arum lily VI-217a; family, Index p. 70
 Aryan I-38a, 239a
 Aryan literature, of India, XII-209a
 Asbestos VII-19b; III-290b
 Ascalon, *see* Ashkelon
 Ascension Day, Christian feast, I-123a, 177a
 Asceticism I-38a; in Hindu religion, I-225a; in Moslem religion, I-142a
 Asclepius (Aesculapius), Greek god, I-471a; Index p. 138a
 ascorbic acid, in vegetables, XI-29b
 Ascot, horse-race, IX-290a; gold cup, IX-292a
 asdic, submarine detecting device, X-401a
 asepsis (prevention of germ infection) XI-7b
 asexual reproduction: in animals, II-344a; in plants, II-345a
 Asgard, home of the gods, Norse mythol., I-343a, 345a
 Ash, first man, Norse mythol., I-343a
 ash, hardwood, VII-223a; *illus.* VII-225
 ash, mountain, *see* rowan
 ash, tree, VI-456a; II-476a; fruit, II-379b, 167a; Index p. 67
 Ashanti, African peoples, I-39b; territory, III-208b
 Ashburton shield, for rifle shooting, IX-410a
 Asher, tribe of, Old Testament, Index p. 124a
 Asherat-yam, Phoenician goddess, I-364b
 'Ashes, The', in Test Cricket, IX-164b
 Ashkelon (Askelon, Ascalon), Philistine city, Old Testament, Index p. 124a
 Ashkhabad, Turkmenskaya, U.S.S.R., III-448a; I-447b; *map* III-459
 ashlar, stonework, VIII-270b
 Ashmolean Museum, Oxford, XII-370a
 Ashtoreth, Phoenician and Canaanite goddess, Index p. 124a
 Ashur (Assur), ancient city of Mesopotamia, I-21a, 42a

- Ashur-bani-pal, 7th-cent. B.C. Assyrian king, I-43a, 60b; XII-32a; *illus.* I-63
- Ashur-nazir-pal, 9th-cent. B.C. Assyrian king, I-42b; XII-30b; *illus.* I-41
- Ash Wednesday, in Christian year, I-123a
- Asia III-20b; Asiatic peoples, I-392a; density of population, I-372a
- Asia Minor (lands of E. Mediterranean) *see* Ancient Civilizations; *see also* Turkey
- Askold, 5th-cent. Scandinavian knight, III-250b
- Asmara, Eritrea, N.E. Africa, III-157b
- Asmodeus, Persian demon, I-430a
- Asoka (d. 232 B.C.), emperor of India, V-20b, I-240b; edicts of, *illus.* IV-200a
- Asparagus VI-37b; wild, II-247a, 119a; family, Index p. 69
- asparagus beetle VI-51a
- aspergillosis, animal disease, VI-22a
- Asphalt, mineral, III-22a; asphalt lake, Trinidad, III-485a
- Aspheron peninsula, Azerbaijan, U.S.S.R., III-44a
- asphodel, bog plant, II-245b, 201
- asphyxia (suffocation) XI-168a
- aspics, savoury jellies, XI-265b
- aspidistra, plant, II-247a
- aspirin XI-125a
- Asquith, Herbert Henry, Earl of Oxford and Asquith (1858-1928), V-280a
- Ass II-25b
- Assam, *state*, India, III-63a; I-246a; *map* III-229; earthquakes and famine, VI-128b; tea-growing, VI-438a
- Assassination X-46b
- assassin bug, insect, II-58b
- assault X-90b
- Assaying, of metals, VII-20b; tin, VII-132b
- assembling, in engineering, VIII-242b
- assembly and erection of machinery VIII-164a
- Assembly Rooms, Bath, V-331a
- Asser (d. 909), Welsh bishop, V-11a
- assets, 'goodwill', in trade, VII-213b
- assets and liabilities, book-keeping, VII-48b
- Assiniboin, N. American-Indian tribe, I-11a
- Assisi, Italy I-168a; *illus.* I-265
- Assize Court X-48a; *illus.* X-466
- Association Football IX-23b
- Association Football, History of, IX-26b
- Association Football Leagues IX-29b
- assonance in poetry XII-470a
- Assumption, feast of the, I-177a
- 'Assumption of the Blessed Virgin', El Greco, *illus.* V-200
- Assur, *see* Ashur
- assurance, *see* Insurance
- Assyrian Art XII-30a, 440b
- Assyrian Civilization I-41a, 20b-21b; V-238b; *map* I-23
- Assyrian language IV-403a
- Assyrian music XII-291a
- aster, garden flower, VI-25a
- aster, sea, plant, II-375b
- asteroids, minor planets, III-343a; *diag.* III-341
- asthma, disease, XI-3b
- astigmatism, aberration, of lens, VIII-254a
- astigmatism, eye condition, XI-152b
- Astley's Royal Amphitheatre of Arts IX-134b
- Aston Villa football team IX-27b
- Astrakhan, *port and region*, U.S.S.R., III-75b, 469b; *map* III-459
- astrakhan, lamb skin, VII-200b
- astrolabe, astronomical instrument, III-23b
- Astrology I-44a
- astro-navigation IV-295a, 287b
- Astronomy, History of, III-23a
- Astronomy, Measurements of, III-30a
- Astronomy, Modern, III-26b; telescope, VIII-435b
- asylums X-263a
- Aswan Dam, Egypt, VIII-15a
- Atacama desert, S. America, III-414b
- Atahualpa (c. 1502-33), Inca of Peru, V-365b
- Atalanta, Arcadian princess, Greek mythol., Index p. 138b
- Atatürk (Mustapha Kemal, 1881-1938), Turkish statesman, V-21a; I-479a
- Aten, sun god, ancient Egypt, V-5b
- Athaliah, mother of Ahaziah, Old Testament, Index p. 124a
- Athanasian Creed V-22a
- Athanasius (c. 296-373), bishop of Alexandria, V-22a
- atheism (disbelief in existence of God) I-393a
- Athena (Pallas Athene), Greek goddess, I-201a, 209b; III-33b; Index p. 138b
- Athenaeum, Roman educational institute, X-475b
- Athenæum Club, London, IX-142b; XII-373b
- Athenian League, Association Football, IX-30a
- Athenians, origins, I-203a; *see also* Athens, ancient
- Athens, Greece, III-33a; *map* III-160
- Athens, ancient, I-202b; X-87b; coinage, VII-122a; democracy, I-205b; empire, V-358a; law, X-234b; Piræus, *port*, IV-322b; ships, IV-100a
- 'Athens of America' (Boston) III-57a
- Athletics IX-31a; heavyweight events, IX-36b; women's, IX-41b; world records, IX-34
- Athletics, Field Events, IX-35a
- Athletics, Track Events, IX-37b
- athodyd, aircraft jet engine, IV-9b
- Atlantic Ocean III-321a
- Atlantic Pact (N.A.T.O.), 1949, X-213b, 217b
- Atlantis, I. Greek legend, Index p. 138b
- Atlas, Greek god, I-196b; Index p. 138b; *illus.* I-207
- atlas, maps, IV-252a
- Atlas mts., N. Africa, III-302b, 9a; *map* III-5
- Atmosphere III-34a
- atmospherics, in wireless transmission, IV-103a
- atoll, coral reef, III-113a
- Atom III-35b, 277b; radioactive isotopes, VIII-349b
- atomic bomb VIII-314b; development of, V-399a; first use of, X-58a
- atomic energy VIII-313a
- atomic pile (reactor) VIII-315b
- atomic power VIII-315b
- Atonement, Day of, I-280b
- Atonement, doctrine of, I-120b
- 'atouts', *see* tarots
- Atreus, Treasury of, Mycenaean tomb, I-330a
- atropine, drug, XI-125a
- Atropos, *see* Fates
- A.T.S. (Auxiliary Territorial Service) X-493a
- atta, ant, II-20a
- Attainder, Bill of, X-305a; used against Laud, V-265b; Strafford, V-430a
- attar of roses, perfume, III-63a; VI-302a
- Attica, ancient Greece, I-205b
- Attic Greek, dialect, IV-178a
- Attic tribes, of ancient Greece, I-205b
- Atticus (Joseph Addison) V-4a
- Attic vases, Greek art, I-205a; XII-182b
- Attila (c. 406-53), leader of the Huns, V-22b; I-234b
- attorney X-239a
- attorney-general X-237a
- aubergine (egg-plant) VI-126a
- Aubrey, John (1626-97), English writer, XII-44a
- aubrietia, plant, VI-381a
- Aubusson carpets VII-86a, 84b
- A.U.C. (Anno Urbis Conditae, from the foundation of Rome) III-69a
- Auckland, *port*, New Zealand, III-482b; *map* III-312
- Auctions VII-22a, 280b; cattle, VI-283b; wool, VII-483a
- Auden, Wystan Hugh (1907-), English poet, XII-272b
- Auditing VII-24a
- auditor-general, *see* comptroller and auditor-general
- Audrey (Ethelreda), St., IX-206a
- auger shell *illus.* II-271
- augite, mineral, III-290b
- Augsburg, Peace of (1555), V-286b
- Augsburg Confession, Lutheran creed, I-287b
- augury, divination, I-142b
- Augustan Age, English, XII-32b; drama, XII-373b; IX-463a
- Augustan age, Roman, XII-239b
- August Bank Holiday IX-284a
- Augustine, St. (354-430), Church father, V-22b; XII-192a
- Augustine, St. (d. 604), archbishop of Canterbury, V-201a
- Augustinian friars I-187a; XI-333a
- Augustus Caesar (63 B.C.-A.D. 14), Roman emperor, V-24b, 342b; I-411b; coins, VII-122b; replanning of Rome, III-382a
- Auks, birds, II-26a
- auricula, primula, VI-364b
- auroch, wild cattle, II-80b
- Aurora, Roman goddess, III-39a
- Aurora Australis, lights, in Southern hemisphere, III-38b
- Aurora Borealis, Northern Lights, III-38b; *illus.* III, opp. p. 32

- Austen, Jane (1775-1817), English novelist, V-25b
- Austerlitz, Battle of (1805), X-279b
- Australasia, *see* Australia; New Zealand; Pacific Islands
- Australia III-39a; artesian wells, III-484a; Asian immigrants, X-107a; Botany Bay, I-48a; clipper sailing ships, IV-103a; convict settlements, X-460a; Cook Bay, IV-137a; cricket, IX-164a, 162a, 154a; discovery of, V-105a; wine production, VII-472b
- Austrian Empire, Government of, X-48b
- Australian Aborigines I-46a, 392b; *illus.* I-391; totemism, I-475a
- Australian animals III-40b
- Australian Broadcasting Commission IV-69a
- Australians I-48a; bush-ranging, X-64b
- Australoid peoples I-392b
- Austria III-42a; *map* III-160
- Austrian empire, *see* Hapsburg empire
- Austrians I-50b
- Austrian Succession, War of the (1740-8), V-293b; X-486b
- Authorized Version, of Bible, XII-460a
- authors, relations with publishers, IV-48a
- autobahn, German motor road, IV-371a, 367a
- autobiography XII-43a
- autocracy X-272b
- auto-da-Fé, of Inquisition, I-254b
- autogiro aircraft IV-378a
- Autograph Collecting IX-41b
- Autolycus, character in Greek legend, Index p. 138b
- Automatic Controls VIII-16a, 228a, 138b; of guided missiles, X-179a
- automatic pilot, of aircraft, VIII-16b
- Automatic Signalling, Railway, IV-33b
- automobile, *see* motor car
- Automobile Association IV-373a
- automobile engineering, *see* internal combustion engine; motor industry
- autoradiography VIII-351b
- autostrade, Italian motor road, IV-371a, 367a
- autumn crocus II-246a
- Auxiliary Territorial Service (A.T.S.) X-493a
- Avalanche III-43a
- Avebury, Wilts., I-52a
- Avenger, U.S. aircraft, X-292a
- aventurine, Indian jade, III-243b
- Averroës (1126-98), Arabic philosopher, V-26b
- Avesta, Persian sacred writings, XII-340b; I-421a
- aviation, *see* aircraft; civil aviation; flying
- Avicenna (Ibn Sina, 980-1037), Persian philosopher and physician, XII-341a; XI-304a, 99a
- avocado pear, tropical fruit, VI-463a
- avocet, bird, II-453b
- Avogadro, Amedeo (1776-1856), Italian scientist, III-279b
- axes, prehistoric weapons, I-383a
- axle notation, of locomotives, IV-240b
- Axles VIII-18a; IV-484b
- axolotl salamander, reptile, II-359b; *illus.* II-360
- aye-aye, lemur, mammal, II-243b
- Aymara, tribe of Peru, S. America, I-360b
- Ayrshire cattle VI-76b
- Ayudha puja*, Hindu festival, I-227b
- azaleas, flowering shrubs, VI-324b, 245a
- Azazel, demon, Hebrew religion, I-423b
- Azerbaijan, U.S.S.R., III-44a; *map* III-459
- Azjer, N. Africa, peoples of, I-477a
- azobenzene, insecticide, VI-249a, 249b
- azo dyes VII-168b
- Azores, *Is.*, N. Atlantic Ocean, III-44a, 321b; *map* III-322
- Azov, Sea of, Black Sea, III-54a
- Azra'il, archangel, Moslem religion, I-27a
- Aztec Civilization, ancient Mexico, I-53a; *chart* I-22; Quetzalcoatl, god, I-7a
- Aztek language IV-27a
- B.A. (Bachelor of Arts) XII-24b
- Baal, Phoenician god, I-364b; Index p. 124a
- Babbage, Charles (1792-1871), British mathematician, IV-116b
- babbitt, metal, VII-21a
- Babel, tower of, Index p. 124b; XII-444a
- Babenburg, ruling family, medieval Austria, I-50b
- babies, birth of, XI-22b
- Babies, Care of, XI-10a
- Babies, Feeding of, XI-13a, 12b, 23b
- Babington Plot (1586) IV-106a
- babirusa (pig deer) II-421a
- Baboon, monkey, II-28a
- baby clothes XI-57b
- Babylon, hanging gardens, XII-474b
- Babylonian Art XII-35a, 440b
- Babylonian Civilization I-57a, 21a; *map* I-23; *chart* I-22; measures, IV-262a; numerals, IV-113a; temples, I-470a
- Babylonian language IV-403a
- Babylonian Myths I-61a
- Baby Transport XI-15b
- baccalauréat, examination, X-479a
- baccarat, card-game, IX-115b
- Bacchae, tragedy by Euripides, V-160b
- Bacchanalia, festival, ancient Rome, IX-174b
- Bacchus, Roman god, I-202a; IX-174b; Index p. 138b; *see also* Dionysus
- Bach, Carl Philip Emanuel (1714-1788), German composer, XII-424a, 446a
- Bach, Johann Sebastian (1685-1750), German composer, V-27a; Brandenburg concertos, V-28b; XII-94b; harmony, V-28a; XII-191a; orchestra, XII-314b; IX-351b; Passion music, XII-332b; V-27b; sonatas, XII-423b
- Bach Choir V-28b
- Bachelor of Arts (B.A.) XII-24b
- Bach Festival IX-341b
- bacilli, bacteria, II-28b
- back-acter (trench hoe) VIII-119a
- Backgammon, dice-game, IX-42a
- bacon VI-330a; curing and smoking, XI-182a
- Bacon, Francis (1561-1626), English philosopher and writer, V-29a; essays, XII-137a
- Bacon, Roger (c. 1214-94), English pioneer in science and philosophy, V-30a
- Bacteria II-28b; in cheese making, XI-52a; in digestive system, XI-102a; cause of food poisoning, XI-181a; in milk, VII-330b; in soil, VI-422a; II-292b; use in sewage disposal, VIII-385a; cause of wound infection, XI-26b
- bacterial diseases: of animals, VI-19a; of humans, XI-144a, 250a-252a; 461b-463b; caused by milk, VII-330b; of plants, VI-341b
- Badajoz, Spain, in Peninsular war, X-410b
- Baden-Powell, Lord (1857-1941), founder of Boy Scout and Girl Guide movements, V-31a
- Badger II-28a; VI-489b; badger-hunting, IX-294b
- badger-dog (dachshund) IX-195a
- Badminton, game, IX-43a
- Baedeker's Guides IV-465a
- Baekeland, Leo Hendrick (1863-1944), American chemist, VII-342a
- Baffin Island, north polar territory, III-346a
- bagasse, by-product of sugar-making, *illus.* VII-73b
- bagatelle, game, IX-69a
- Bagdad (Baghdad), Iraq, III-45a; *map* III-17
- baggetaway (lacrosse), ball-game, IX-306a
- bag-net, fishing net used in trawling, VI-454a, 160a
- Bagpipes, musical instrument, IX-44b, 278a
- Bagworms, caterpillars, II-29a
- Bahamas, *Is.*, Atlantic Ocean, III-484b; *map* III-485; government of, X-102a
- Bahia, port, Brazil, III-58b; *map* III-415
- Bahrein *Is.*, Persian Gulf, III-18a; *map* III-17
- Baikal, lake, U.S.S.R., I-437b; III-254a; *map* III-459
- bail, law, X-118b
- bailey, of castle, XI-45a
- bailey bridge VIII-41b
- baillie, municipal magistrate, Scotland, X-251b
- bailliff (sheriff's deputy in carrying out the law), *see* sheriff; seizure of goods, X-345b
- bailliff, lord's agent on manor, XI-294a
- bailiwick, governmental district, Channel Islands, III-81b
- bailment, law, X-345a
- bakelite, plastic, VII-342a
- Bakewell, Robert (1725-95), agricultural improver, V-31a; VI-8a
- Baking XI-16b
- Baking Industry VII-25a; safety devices, VIII-379a
- baking powders XI-375a
- Bakony Forest, Hungary, III-220b
- Baku, port, Caspian Sea, III-44a, 324b; *map* III-75

- Bakunin, Michael (1814-76), Russian socialist, X-29a
- Balaam, soothsayer, Old Testament, Index p. 124a
- balachong*, condiment, VI-415a
- Balaclava, battle (1854), X-118a
- Balak, *see* Balaam
- Balakirev, Mili Alexeyevich (1836-1910), Russian composer, V-439b
- balalaika, string instrument, IX-313b, 311b
- balance, book-keeping, VII-50a; balance sheet, VII-52a; depreciation, VII-158b
- balance, sense of, II-383a; XI-128b
- balance of trade VII-249a
- balances, weighing instruments, VIII-481a
- balance-wheel, of clocks and watches, VIII-81b
- Balaton, lake, Hungary, III-220b
- Balboa, Vasco Núñez De (1475-1517), Spanish explorer, IV-143b
- Balconies XI-17b
- Balder (Baldur), god, Norse mythol., I-197a, 344b
- Bâle, Switzerland, *see* Basel
- Balearic Islands, Spain, III-45b; *map* III-160
- baleen whale VI-483b
- baler, harvesting machinery, VI-227a
- Balfour Declaration (1917) I-277b
- Bali, I., Indonesia, III-145a; I-251a
- Balinese, Indonesian peoples, I-250b
- Baliol, John (1249-1313), King of Scots, V-466a
- Balkan languages IV-420a
- Balkans, countries bounded by Adriatic, Aegean, and Black Seas, *see map* III-160
- Balkhash, lake, Kazakhskaya, U.S.S.R., III-250a; *map* III-459
- Ball, John (d. 1381), leader of Peasants' Revolt, V-453b
- Ballad XII-36a; Spanish, XII-433a
- ballade, verse-form, XII-471b
- ballad-makers, street entertainers, IX-445b
- Ballarat gold field, Australia, I-49a
- ballast cleaners, of railway track, VIII-363a
- ball bearings VIII-21b; IV-485a
- ball-cock, of water-cistern, VIII-228a
- Ballet IX-45a, 176a
- Ballet Music XII-38a
- ballett, song, XII-428b
- Balliol College, Oxford, X-389b, 306a
- ballista, weapon, X-43b
- Ballistics VIII-19a
- Balloon IV-35a, 155a; balloon displays, IX-11a
- balloon barrage, of Second World War, X-9a; *illus.* X-51
- ballot paper X-145a
- ball-point pen IV-496a
- Ballroom-dancing IX-49b
- Balmoral Castle, Aberdeen, Scotland, X-380b
- Baloch tribes, of Baluchistan, N.W. India, I-245b
- balsam, Canada, resin, VII-219a
- balsa tree, timber, VII-223b
- Balshazzar (6th cent. B.C.), prince of Babylon, V-116b
- Baltic languages IV-420a
- Baltic Mercantile and Shipping Exchange VII-280a, 392b
- Baltic Republics of the U.S.S.R. III-46b
- Baltic Sea III-46a; *map* III-160
- Baltic-White Sea Canal, U.S.S.R., III-255b
- Baluchi language IV-312b
- Baluchistan, province, Pakistan, III-332a, 226b; peoples, I-245b; *map* III-229
- Balzac, Honoré de (1799-1850), French novelist, V-31b
- bamboo-pipe, musical instrument, IX-400b, 376a
- Bamboos VI-39a; II-181b; roots, II-356; *illus.* II-182
- bamboo snake II-447a
- Bananas VI-39b; import, VII-214b
- banda-shell, black-edged, II-312a
- band-dog (mastiff) IX-190b
- Bandello, Matteo (1485-1561), Italian writer, XII-220a
- bandicoot, mammal, II-261b
- bandie, stickleback, fish, II-412a
- bands: brass, IX-89a; dance, IX-171a; military, IX-317a
- band-saw VIII-490b
- bandy, ball game, IX-281b
- Banff National Park, Alberta, Canada, IX-344a
- Bangkok, Siam, III-46b; *map* III-229
- Bangweulu, lake, N. Rhodesia, III-105b; V-279a
- banjo, string instrument, IX-313a
- Bank Accounts VII-27b; loans, VII-148a
- Bank Charter Act (1844) VII-36a
- bank draft VII-333b
- Bank Failures VII-29b
- bank holidays IX-286a
- Banking VII-31b; state control of, VII-300a
- Banking Engine IV-36b
- bank-notes VII-149b, 32a; of private banks, VII-29b, 36a; paper, VII-327a
- Bank of England VII-34b; currency control, X-124b; government loans, VII-271b
- Bank-rate VII-37a
- Bankruptcy X-50a
- Banks, Sir Joseph (1740-1820), British botanist, I-48b
- Banks, The, off Newfoundland, III-310b
- banner, variety of flag, IV-148b
- Banners, Mongol tribes of central Asia, I-323a
- banshee, fairy, I-169b
- bantam, fowl, VI-356b
- bantamweight boxer IX-82b, 85a
- Banting, Sir Frederick G. (1891-1941), discoverer of insulin, XI-99a
- Bantu, African languages, IV-6a
- Bantu peoples, of S. and E. Africa, I-337b, 339a, 152a
- Bantu Wars I-442a
- baps, scones, XI-400a
- Baptism: Christian, I-417a; Moham-medan, XI-156a
- Baptist, member of Protestant branch of Christianity, I-64a
- Baptist, *see* John the Baptist
- baptistery, of church, XII-158a
- bar, legal, X-237b; *see also* barrister
- Barabbas, Jewish brigand, Index p. 124b
- Barak, *see* Deborah
- Barbados, I., West Indies, III-484b; peoples, I-487; government, X-102a
- Barbara, St., Index p. 134a
- Barbarossa, Frederick (c. 1123-90), Holy Roman Emperor, V-171a
- barbary ape II-275a
- Barbary corsairs, pirates, IV-317b
- barbary sheep (udad) II-386b
- Barbary States, N. Africa, IV-317b
- barbecue, grill, XI-204b
- barbel, fish, II-74; IX-17a
- barber, shaving, XI-18b; barber's pole, VII-448a
- Barber Chirurgeons' Company VII-107b
- Barber jewel, *illus.* XI, opp. p. 224
- Barbizon school of painters XII-390a
- Barbon, Nicholas (d. 1698), founder of insurance company, VII-65a
- Barcelona, Spain, III-419a; *map* III-160
- Barebones Parliament (1653) V-114a
- Barents, Willem (d. 1597), Dutch navigator, IV-143b
- Barge IV-37b
- barge board, of roof, XI-385b
- Barham, Richard Harris (1788-1845), English writer, XII-92a
- barium, in fireworks, IX-228a
- bark, of tree, II-410b; *illus.* II-157a
- bark beetle VI-455a
- Barlach, Ernst (1870-1938), sculptor, XII-144b
- Barley VI-40b; II-182a; malt, VII-276a; other uses, XI-48a
- barley water XI-74a
- Barlow Report, distribution of industries, X-133a
- Barmecides, 8th-cent. noble Persian family, V-211a
- Barnabas, St., apostle, Index p. 124b
- Barnaby Rudge, novel by Charles Dickens, V-138a
- Barnacle, aquatic animal, II-29b
- Barnardo, Thomas John (1845-1905), founder of Barnardo homes for destitute children, V-32b
- Barnes, S. F. (1875-1955), cricketer, IX-162b
- Barn Machines VI-42a
- barn owl II-305b; *illus.* VIII-208
- barns and granaries VI-138a, 140a
- Barnsley, Ernest and Sidney, 19-cent. furniture designers, XI-196b
- Barnum, P. T. (1810-91), American showman, IX-136b
- barograph, meteorological instrument, VIII-290b
- Baroja y Nessi, Pio (1872-), Basque writer, XII-434a
- barometer VIII-289a; III-480b; aneroid, III-353b
- baron, peer, X-316b
- Baroque Art XII-38b; Flemish, XII-152b; German, XII-172a; sculptured tombs, XII-455a
- barouche, horse-carriage, *illus.* IV-87

barrage balloon X-9a; *illus.* X-51
 barrage construction, *see* dams
 Barra Head, Outer Hebrides, W. Scotland, III-215a; *map* III-396b
 barramunda, fish, II-256b
 Barranquilla, *port*, Colombia, S. America, III-99a; *map* III-415
 Barrel-Organ IX-52a
 barrels, *see* cask-making
 barrier creams, use against dermatitis, VIII-379b
 barrister X-237a
 Barrows and Cairns, burial mounds, I-65a
 Barry, Sir Charles (1795-1860), British architect, XII-180b, 372b
 bar-shot, explosive projectile, X-294b
 barter VII-182a
 Bartholomew, St., apostle, Index p. 124b
 Bartholomew, St., Eve of, massacre, I-232b
 Bartholomew's fair IX-208a
 Bartók, Béla (1881-1945), Hungarian composer, V-33a
 Barton Aqueduct, Manchester, IV-81b
 barytes, mineral, VII-298a
 basalt, rock, III-378a; *diag.* III-136
 bascule bridge IV-63a
 Baseball IX-52b
 Basel (Bâle), Switzerland, III-428b
 Basic English, artificial language, IV-40a
 Basil, St., 4th-cent. bishop, I-325a
 Basil, Colonel de, founder of 'Les Ballets Russes' (1932), IX-49a
 basilica, Roman public building, XII-379b
 basilisk, lizard, II-251b
 basilisk, mythological creature, I-168b
 basinet, armour, X-37b
 Basketball IX-54b
 Basket-making VII-38a
 Basque country, W. Pyrenees, III-354b
 Basque people I-449a; language, IV-424b; folk-dances, IX-231b-235b; pelota, ball game, IX-363b
 bass, fibre, in brushmaking, VII-60b
 bass, fish, II-372a, 315b; bass-fishing, IX-18b
 bass-drum, percussion instrument, IX-366a
 basset-hound IX-190b, 271a
 bassoon, wind instrument, IX-486b, 488b; in orchestra, IX-352a, 317b
 Bass Straits, S. Australia, I-48b; *map* III-41
 basswood VII-224a
 bast, in structure of plant, II-408b
 Bast, Egyptian goddess, IX-117a
 Bastia, *port*, Corsica, III-114b
 Bastille, French prison, X-168b
 Basutos, Bantu people of S. Africa, I-339a; government of, X-102a
 Bat, mammal, II-30b; VIII-468a
 Bataks, tribe, Philippine Is., I-139a
 Batavia, *port*, Java, E. Indies, III-145b
 batch production, industrial method, VII-366b
 bateleur eagle II-127a, 128a
 Bates, Henry Walter (1825-92), British naturalist, II-333b
 Bath, Somerset, IX-436b; Roman baths of, IX-411b

Bath, Order of the, X-187a
 Bath and Wells, Bishop of, X-114a
 Bath and West Show IX-292b
 bathing, history of, XI-354b
 bathing, sea, IX-426a; *see also* swimming
 bathing machine IX-426a; *illus.* IX-425
 batholiths, granite piles, III-376b
 bathos, device of speech, XII-149a
 Bath Road IV-40b
 baths XI-354b; medicinal, IX-436a; Roman, IX-411a; swimming, IX-453a
 bath salts VII-134b
 Bath-sheba (11th-10th cent. B.C.), wife of King David, V-127b
 Bathurst, *port*, Gambia, W. Africa, III-179b
 bath white, butterfly, II-62a
 batik dyeing method VII-168b
 Batley, Yorks., wool industry, VII-486a
 Batlle y Ordóñez, José de, Uruguayan president (1903-7, 1911-15), I-482b
 battalion X-366a
 Battersea Power Station VIII-201a
 Battery, Electric, VIII-19b
 battle-cruiser X-122b
 battledore and shuttlecock, game, IX-447b
 Battle of Britain X-50b
 battle school X-43a
 Battleship X-52a; *illus.* X-383
 Batu, 13th-cent. Tartar leader, III-250b
 bauble, jester's stick, IX-298b
 Baudelaire, Charles Pierre (1821-67), French poet, V-33b; XII-165a
 Bauhaus, school of modern art, XII-172b
 bauxite, mineral, VII-15b
 Bavaria, *region*, Germany, III-187a
 Bavarians, *see* Germans
 Bayeux Tapestry XII-41b; *illus.* X-182
 Bayle's *Dictionnaire historique et critique* XII-129b
 Baylis, Lilian (1874-1937), founder of the Old Vic, IX-403a, 49a
 bay lynx (bobcat) *illus.* II-79
 bayonet, weapon, X-228b, 490a
 Bayreuth Festival V-465a
 B.B.C., *see* British Broadcasting Corporation
 B.C. (Before Christ) III-69a
 B.E.A. (British European Airways) IV-97b
 beach-mine X-58b
 beacon, signalling, IV-414a
 Beaconsfield, Earl of, *see* Disraeli
 beadlet anemone, sea-animal, II-368b
 Beagle, naval survey ship, V-124b
 beagle, hunting dog, IX-271a, 190b
 beagling, hare hunting, IX-271a
 Beaker people, prehistoric people, I-53a
 Beaker pottery I-381a
 Beale, Dorothea (1831-1906), British educationalist, X-353a
 beam trawl, fishing net, VI-454b
 beam wireless IV-410b
 bean beetle VI-51a
 bean pests and diseases VI-46b
 Beans, Broad, VI-43b; II-378b
 beans, dried, IX-48b
 Beans, Kidney and Runner (French, haricot, lima), VI-45a

Bear II-32a; bear-hunting, IX-64b, 66a; performing bear, IX-367a-368a
 'bear', stock exchange term, VII-411a
 bear, tree (hyrax), II-216b
 Bear-baiting IX-56a
 bear cat II-87b
 bearded wheat, cereal, II-182a
 Beards and Moustaches XI-18a
 Beardsley, Aubrey (1872-98), British artist and designer, IV-199a
 bearer bond, security for loan, VII-45a
 Bearings, of machinery, VIII-20b
 Beasts of Burden IV-41a; 122a; donkeys and mules, VI-117b
 'beating the bounds', springtide rite, IX-284a; *illus.* X-249
 Beatrice, in *The Divine Comedy*, V-249
 Beatty, David, Earl (1871-1936), British admiral, X-225a
 Beau de Rochas, 19th-cent. engineer, VIII-153b
 Beaufort scale, of wind-force, III-490
 Beaumarchais, Pierre (1732-99), French dramatist, XII-165a
 Beaumaris Castle, Anglesey, *illus.* X-270
 Beaumont, Francis (1584-1616), English dramatist, XII-91b
 'Beau' Nash (Richard Nash, 1674-1761), master of ceremonies at Bath V-331a
 Beaver II-34a; fur, VII-200b
 beaver, armour, *illus.* X-37
 beaver-rat (coypu) II-100b
 bêche-de-mer (trepang), sea-cucumber, II-369b
 Becket, St. Thomas (1118-70), archbishop of Canterbury, V-34a
 Beckford, William (1760-1844), English novelist, XII-180b, 390a
 Beekton gasworks, London, VII-202a; VIII-181a
 Becquerel, Antoine Henri (1852-1908), French physicist, III-36a
 Bed-Bug II-34b; XI-230b
 Bed Coverings XI-19b
 Bedding Plants VI-46b
 Bede (c. 673-735), historian and scholar, V-35a
 Bedford, Francis Russell, Earl of (1593-1641), VIII-159b
 Bedford College, London, X-255a
 Bedlam Hospital, London, X-263a, 189a
 Bedouin, Arabs, I-66a
 bedrooms XI-21a
 Beds XI-21a; draperies, XI-95a
 bedstraw, plant, Index p. 67
 bee, insect, *see* bees
 bee-bread II-36b
 beech, hardwood, VII-223b; *illus.* VII-225
 beech tree VI-456a; nut, II-167a
 beech woods II-474b
 Bee-Eater, bird, II-35a
 beef XI-301a
 beef cattle VI-76a, 78a, 84a; care of, VI-82a; improvement of, VI-8a
 bee farms VI-50a; in tropical countries, VI-24a
 bee fly (humble-bee fly) II-214a
 bee gum (propolis) VI-48b
 bee-hawk (honey-buzzard) II-196b
 bee hawk moth II-197b

- beehive VI-48a
 beehive hut XI-370a; *illus.* XI-369
 Bee-keeping VI-48a; in tropical farming, VI-24a
 bee louse II-228b
 Beelzebub, Philistine god, I-430b; Index p. 124b
 beer XI-2a
 Beerbohm, Sir Max (1872-1956), English critic and cartoonist, XII-60a, 136b
 Beer Brewing VII-40a; casks, VII-86a
 Beersheba, holy place on borders of Palestine, Index p. 124b
 Bees, insects, II-35b
 beeswax VI-236b
 beet, vegetable, II-356b; Index p. 70
 Beethoven, Ludwig von (1770-1827), German composer, V-35b; *Fidelio*, XII-311a; orchestration, XII-315b; IX-351b; *Pastoral symphony*, XII-366a; quartets, XII-62a; sonatas, XII-424a; symphonies, XII-446b, 366a
 Beetle Pests VI-51a
 Beetles II-38b; protective mimicry, II-333b; water, II-40b
 beetles, furniture, II-114a; XI-230a
 beetles, sacred, I-418b
 beetling, process in linen-making, VII-270a; *illus.* VII-165
 Beeton, Mrs. Isabella Mary (1836-65), author of *Household Management*, XI-376b, 238a
 Beetroot VI-53a
Beggar's Opera, The (1728), by John Gay, XII-310b; IX-350
 Beggartaff brothers, 19th-cent. poster designers, XII-353a
 begonia, greenhouse plant, VI-216a
 Béguines, nursing order, XI-333a
 behaviour, social rules, XI-146a
 'Behaviourism', school of psychology, XI-373b
 Behring, Emil Adolf von (1854-1917), German doctor, XI-250a
 Behring (Bering) Sea, Arctic Ocean, III-7b, 6b
 Behring (Bering) Strait, N. America/Asia, III-346a
 Beirut, *port*, Lebanon, III-430b; *map* III-17
 Bel, Babylonian god, I-57a
 bel canto singing IX-428a
 belemnite, fossil, *illus.* III-171a
 Belfast, Northern Ireland, III-48a; *map* III-236; cotton industry, VII-142b
 Belfort Gap, Jura/Vosges mts., France, III-173b, 174b
 Belgae, ancient Celtic tribe, I-379b
 Belgian art, *see* Flemish art
 Belgian Congo, equatorial Africa, III-48a; *map* III-5
 Belgian hare, breed of rabbit, VI-370b; *illus.* VI-369
 Belgians I-67b; language, IV-171a
 Belgium III-49b; *map* III-160
 Belgrade, Yugoslavia, III-51a; *map* III-121
 Belial (Beliar), evil spirit, I-430a; Index p. 124b
 Belisarius (527-63), general of Roman army, V-253b
 'Belisha' street crossings IV-372b
 Bell, Alexander Graham (1847-1922), inventor, IV-426b
 bell, electric, VIII-461b
 Bell, Gertrude (1868-1926), letters of, XII-244a
 Bell, Rev. Patrick (1801-69), agricultural inventor, VI-142a
 bell-bird II-84a
 Belle Isle Straits, N. America, III-310b
 'Belle Jardinière, La', Raphael, V-382b; *illus.* XII-84
 Bellerophon, character in Greek mythol., I-335b; Index p. 138b
 bell-flower (campanula) II-4b
 bell-heather II-200b
 Bellini, Gentile (1429-1507), Italian painter, V-37b
 Bellini, Giovanni (c. 1430-1516), Italian painter, V-37b; *illus.* XII-465
 Bellini, Vincenzo (1801-35), Italian composer, XII-311b
 Bell-ringing IX-57a
 bells, as orchestral instruments, IX-365a
 bell signals IV-415a
 Bell Telephone Company of America V-151a
 Belshazzar, *see* Balshazzar
 belt and chain conveyors VIII-94b
 Belt and Chain Drive VIII-22b
 Benares, N. India, III-180a; *map* III-229; *illus.* I-243
 bench marks, surveying, VIII-427a
 'bends, the', blood-pressure complaint, III-354a; VIII-467b
 Benedict, St. (c. 480-c. 540), V-38a; Index p. 134a
 Benedictine monastic order I-325a; V-38b; initiation ceremony, I-252a
 Beneš, Eduard (1884-1948), president of Czechoslovak republic, I-136b
 Bengal, *province*, Pakistan, III-332a, 180a, 230a; East India Company, VII-172a; famine, VI-128a
 bengalee, bird, IX-108a
 Bengali language IV-199b
 Bengal lights, fireworks, IX-228a
 Benghazi, Libya, N. Africa, III-257b
 Benguela current, Atlantic Ocean, III-324a
 Ben-hur, officer of Solomon, Index p. 124b
 Benin, Nigeria, W. Africa, I-340a; XII-6a
 Benjamin, youngest son of Jacob, Old Testament, Index p. 124b
 Bennett, Arnold (1867-1931), English novelist, XII-133a
 Bennett, Gordon, racing trophies, IX-9b, 326b
 Ben Nevis, *mt.*, Scotland, III-396b
 bent, common, grass, II-181a
 Bentham, Jeremy (1748-1832), English political thinker, V-39a
 benthic animals II-12a
 Bentineck, Lord William Cavendish (1774-1839), governor-general of India, I-460b
 bent-wing moth II-419a
 benzene, chemical, in nylon manufacture, VII-311b
 benzene hexachloride (BHC), insecticide, VI-248b-250a
 benzene poisoning VIII-379a
 benzole, by-product of coal, VIII-173b, 180b
 Beowulf, epic poem, XII-42b, 133b, 130b
 BEPO, experimental pile, Harwell, VIII-316a
 berberis, flowering shrub, VI-165b
 Berber language IV-5b
 Berber peoples, of N. Africa, I-425a, 326b
 Berenice, ancient town of Libya, N. Africa, III-257b
 Berg, Alban (1885-1935), Austrian composer, XII-270a, 312b
 Bergelmir, giant, Norse mythol., I-343a
 beri-beri, disease, XI-476a
 Bering (Behring) Sea, Arctic Ocean, III-7b, 6b
 Bering (Behring) Strait, N. America/Asia, III-346a
 Berkeley, George (1685-1753), Irish bishop and religious philosopher, V-40b
 Berkshire, in county cricket, IX-159b; downs, III-157a
 Berkshire Festival, Pittsfield, U.S.A., IX-341b
 Berlin, Germany, III-51b; *map* III-186
 Berlin 'air lift' (1948-9) X-459b
 Berlin-Stettin canal IV-80a
 Berlioz, Hector (1803-69), French composer, V-41a; orchestration, XII-316a; *Symphonie fantastique*, XII-447a
 bermuda rig, of sailing craft, IX-424a; *illus.* IX-423
 Bermudas, *Is.*, Atlantic Ocean, III-52b; *map* III-322; government, X-102a; I-488b
 Bern, canton, Switzerland, III-181a
 Bern, Switzerland, III-53a; *map* III-160
 Bernadotte, Count Folke (1895-1948), humanitarian, X-217b
 Bernadotte, Jean Baptiste (1763-1844), Swedish general, later King Charles XIV, I-460b
 Bernard, St. (c. 1090-1153), French monk, V-41b
 Berne Convention, copyright law, IV-112a
 Bernese alps, W. Switzerland, III-10b
 Bernese Oberland III-53a
 Bernhardt, Sarah (1844-1923), French actress, V-42b
 Bernini, Giovanni Lorenzo (1598-1680), Italian sculptor, architect, and painter, V-43a; XII-41a; sculpture, XII-350b, 455a; work on the Vatican, XII-463a
 Berquen, Ludwig van, 15th-cent. Flemish lapidary, VII-159a
 berries II-168b; dispersal, II-380a
 Berthollet, Claude Louis, Count (1748-1822), French chemist, IX-227b
 Bertillon, Alphonse, (1853-1914), French criminologist, X-83b
 Bertram Mills Circus IX-137a
 beryl, precious stone, III-153a; *illus.* III-289
 Besant, Annie (1847-1933), theosophist, I-472a

- Bessarabia, *region*, Moldavia, U.S.S.R., III-294b
- Bessemer, Sir Henry (1813-98), inventor of steel process, VIII-238a
- Bessemer converter VIII-413b
- Bessemer steel-making process VIII-413a, 238a; fertilizer by-products, VI-36b
- bestiary, medieval treatise, I-168a
- beta-particle electron VIII-350a
- Betelgeuse, star, III-109b
- betel-nut palm VI-314b
- Bethany, village near Jerusalem, Index p. 124b
- Bethel, holy place near Jerusalem, Index p. 124b
- Bethesda, pool at Jerusalem, Index p. 124b
- Bethlehem, birthplace of Jesus, Index p. 124b; Church of the Nativity, I-116a
- Bethsaida, on Sea of Galilee, Index p. 124b
- Beth-shan, ancient city of Palestine, I-219b
- Betterton, Thomas (c. 1635-1710), actor, XII-373b
- Betting IX-59b
- beverages: ales and beers, XI-2a; cold drinks, XI-73b; hot drinks, XI-226b; wines and spirits, XI-492b
- Bewick, Thomas (1753-1828), English wood-engraver, XII-480a
- Beyer-Garratt railway locomotive IV-32b
- Beyle, Henri (Stendhal 1783-1842), V-426b
- bezant, coin, VII-123a
- bezique, card-game, IX-113a
- Bhagat, devotee, Hindu religion, I-225a
- Bhagavad Gita (the Song of the Blessed One), Hindu Sacred writing, I-420b
- BHC (benzene hexachloride), insecticide, VI-248b-250a
- bhikkhu (one who has withdrawn), Buddhism, I-82b
- Bhils, tribe of W. India, I-246b
- b.h.p. (brake horse-power) VIII-37a; measuring machine, VIII-115a
- Bhutan, state, N.E. India, I-246a
- Biarritz, W. Pyrenees, III-354b
- Bible I-68b, 421b; English, I-124b; V-493b; first printing of, IV-52a
- Bible translations XII-459a; I-321b
- Biblical characters, Index p. 123
- Bibliothèque Nationale, library, Paris, IV-44a
- bicarbonate of soda (sodium bicarbonate) VII-13b, 14b; in cooking, XI-29b
- Bichat, Marie François Xavier (1771-1802), French physician, XI-7b
- Bicycle IV-44b
- Bicycle Polo IX-61b
- Bidpai, Hindu stories, XII-145b
- Biennial Plants VI-54a
- Big Ben, bell, IX-58a
- Big Bertha, gun, X-45b
- big bud, currant pest, VI-109b; *illus.* VI-291
- Big-game Fishing IX-62b, 18b
- Big-game Hunting IX-64b
- bighorn sheep II-386b
- 'Big Muddy' (Missouri river, U.S.A.) III-293a; *map* III-451
- big woods, trees, VI-460a
- Bihorulu *mts.*, Carpathian range, E. Europe, III-74b
- Bihzad, 15th-cent. Persian painter, XII-340a; *illus.* I, opp. p. 352
- bilberry, heath-plant, II-200b; Index p. 66
- bile, in digestive system, XI-101b
- bilge blocks, of dockyard, IV-129a
- bill (invoice for purchases) VIII-250b
- bill, parliamentary, *see* Act of Parliament
- Billiards IX-67a
- Billingsgate fish market, London, VII-191b
- Bill of Exchange (document promising payment) VII-43a; rates of discount, VII-301b, 37b
- Bill of Lading, shipping contract, VII-42b
- Bill of Rights X-53b, 181a
- bill-posting VII-9a
- bimetallic strip, thermometer, VIII-448b, 451b
- binary form, music, XII-284b
- binder, harvesting machine, VI-223b
- binding, books, VII-45b
- bindweed II-91a; Index p. 66
- binturong, civet, mammal, II-87b
- Biographia Literaria*, philosophical and critical work by Coleridge, V-99a
- Biography XII-43a
- biological control of pests VI-327a
- biology: animal, II-8a; human, XI-4b, 283b; plant, II-322b
- biplane, early aircraft, IV-156b
- birch, hardwood, VII-223b
- birch-bark canoe IV-83b
- birch tree VI-456a
- birch-woods II-476b
- bird louse (biting louse) II-255b
- bird pests VI-475b, 490a
- Birds II-43b; classification, II-89b; claws, II-289a; courtship, II-13a; *illus.* II-14; feathers, II-140b; flight, II-154a; migration, II-265b; song, II-13a; territory, II-115b
- birds, as pets, IX-369a, 107a
- bird's-foot trefoil, flower, Index p. 68
- birds'-nesting IX-69b
- bird's nest orchis II-300b
- birds' nest soup XI-418b
- Birds of Paradise II-42b; *illus.* VI-145
- Bird-watching IX-69a
- birdwing, butterfly, II-63a, 65a
- Birkbeck Bank VII-30b
- Birkbeck College, London, X-255a
- Birmingham, Warws., III-53b; jewelry trade, VII-256a; repertory theatre, IX-403a; University X-346b
- Birmingham reservoir, C. Wales, III-470b
- Birth XI-22b; maternity clinics, XI-164a
- Birth, Notification of, Act (1907), XI-164b
- Birth Ceremonies I-71a
- birth certificate X-482b
- birth control XI-164a
- birthdays XI-156a
- Biscay, bay of, III-354a; *map* III-160
- 'biscuit', stage in pottery manufacture, VII-352a
- Biscuits and Cookies XI-25a; manufacture, VII-26b
- bishop, in Christian Church, V-353a; Church of England, I-126b; X-194b
- bishop, in chess, IX-123b
- bishops' courts, of law, X-69b
- Bishops' War, First (1639), V-265b
- Bisley Camp, Surrey, IX-409b
- Bisley church, Surrey, I-181b
- Bismarck, Prince Otto von (1815-98), Chancellor of Prussia, V-43a
- Bismarck*, German battleship, X-402a, 122b
- Bison, cattle, II-47a; American, II-47b; I-11b
- bit, carpentry tool, *illus.* VII-82
- biting house-fly (stable fly) II-405a
- biting louse (bird louse) II-255b
- bitterling, fish, II-74a
- bittern, bird, II-206a
- bitumen, mineral oil, III-325a; VII-315b; uses, III-22b; VII-341b
- bivalve, shell-creature, II-271a
- Bizet, Georges (1838-75), French composer, V-45a
- Björnson, Björnstjerne (1832-1910), Norwegian writer, III-328b
- black and tan (Manchester) terrier IX-194b
- 'Black and Tans', British auxiliary police, X-407b
- black arches (nun) moth II-443b
- black beetle (common cockroach) II-92b
- black bent, weed, VI-480a
- blackberries VI-372a
- blackbird II-427a
- black blight (black dolphin), insect, II-23b
- Blackburn, Lancs., III-274a
- Blackburn Rovers football team IX-27b
- blackcap, bird, II-455a
- black chat, bird, II-427b
- blackcock grouse, bird, II-186b, 187a; *illus.* II-14
- Black Country (industrial area of Midlands) III-156a
- black currants VI-109a
- blackdamp, gas, of coalmines, VII-113a
- Black Death (1348-50) XI-143a; I-192b; effect on agriculture, VI-308a
- black dolphin (black blight), insect, II-23b
- Black Dyke Mills band IX-90a
- black fantail fly-catcher, bird, II-161a
- black-fly, pest, VI-25b
- Blackfoot, N. American Indian tribe, I-11a
- Black Forest, S.E. Germany, III-187a
- Black Friars I-187a
- 'Black Hand', Serbian secret society, X-406a
- Blackheath Rugby Football Club IX-417a
- Black Hole of Calcutta V-95a
- 'black jack', medieval ale jug, VII-264b; *illus.* XI-270
- blacklead VII-214a
- black-letter, writing and printing style, IV-181a; VII-362b

black magic I-490a
 black maria, card-game, IX-113a
 black market VI-349b
 Black Mts., Arizona, U.S.A., III-14a
 Black Prince (Edward, Prince of Wales, 1330-76), son of Edward III, X-200b; V-184b
 black puddings XI-339b
 Black Rod, Gentleman Usher of the, X-195a, 379a
 black rust, wheat disease, VI-339b, 342a
 Black Sea III-54a
 blacksmith VI-393a
 black spot, disease of roses, VI-387b
 Black Stone, central sanctuary of Islam, V-314a
 blackthorn, shrub, VI-458a
 black V-moth II-442a
 black widow spider II-402a
 black witch moth II-290a
 Blackwood's Edinburgh Magazine XII-336b; V-257a
 bladderwort, plant, II-219b
 bladderwrack, seaweed, II-374a; *illus.* II-4
 Blaen, Willem Janszoon (1571-1638), Dutch chartmaker, I-148a
 Blagoveshchensk, U.S.S.R., III-387b; *map* III-459
 Blake, Robert (1599-1657), English admiral, V-45b
 Blake, William (1757-1827), English poet and painter, V-47a; XII-249b; *illus.* XII, opp. p. 288
 Blanc, Mont, *mt.*, French Alps, IX-331b; III-10b
 Blanche of Castille (1188-1252), mother of Louis IX of France, X-282b
 blanching, in canning industry, VII-78b
 blankets XI-19b
 blanking, of metals, VIII-168b
 blank verse, poetry, XII-470b, 414a
 Blasis, Carlo (1803-78), author of treatise on dancing, IX-47b
 Blasket Is., W. Ireland, III-237a
 Blast Furnace VIII-25b
 Blasting VIII-28a; VII-416b
 Blavatsky, Helena (1831-91), founder of Theosophical Society, I-472a
 Bleaching VII-44a; linen, VII-269b
 bleak, fish, IX-16a
 bleeding (haemorrhage) XI-167b
 Blenheim, Battle of (1704), V-295a; X-228b
 blenheim orange, apple, VI-28b
 Blenheim Palace, Oxon., V-454b; *illus.* XII-234; park, IX-360a
 Blenny, fish, II-47b; *illus.* II-400
 Blériot, Louis (1872-1936), French pioneer airman, IV-156b; IX-9b
 blewit, fungus, II-170b
 Bligh, William (1753-1817), of H.M.S. *Bounty*, IV-54b
 blight, American, VI-26b
 blight, potato, VI-340b; Irish, VI-339a
 blimp, airship, IV-20b
 blind alphabet IV-57a
 Blind Fish II-48b
 'blind-flying', air navigation, IV-5a, 14a; VIII-194a
 blind-man's-buff, origin, IX-276b
 blindness XI-151b; colour blindness, XI-152b; blind schools, X-428b

blind snake II-397a
 blind tooling, bookbinding, VII-48a
 blitzkrieg X-51a
 blizzard III-406a
 bloaters, cured herrings, VI-235a
 block, printing, *see* line block; half-tone block
 Blockade X-54b
 block-buster (high capacity) bombs, *see* bombs and mines
 'block coefficient', naval architecture, VIII-308b
 blockflöte, wind instrument, IX-400b
 Blok, Alexander (1880-1921), Russian poet, XII-396a
 Blondel, 12th-cent. minstrel, I-132b
 Blondin, Charles (Jean François Gravelet, 1824-97), rope-walker, IX-3a
 Blood XI-26a
 Blood, Circulation of, XI-27b
 blood feud X-353b
 blood leaf (*Iresine*), garden plant, VI-47a
 blood pheasant II-317b
 blood pressure XI-29a
 blood python, snake, II-52b
 bloodsucker lizard II-2a
 Blood System, animals, II-49a
 blood transfusion XI-27b
 blood-vessels XI-26a; animal, II-9b
 bloodworm, larva, II-265b
 'Bloody Assize' (1685) V-242a
 Bloomer, Amelia Jenks (1818-94) American feminist, XI-91a
 blotting-paper IV-496b
 Blow, John (c. 1648-1708), English composer and organist, XII-398b
 blow-fish II-326b
 Blowfly II-50b; extermination of, XI-230a
 blow hole, of caves, III-77a
 Blücher, Gebhard Leberecht von (1742-1819), Prussian field-marshal, V-478a
 'blue baby' XI-222a, 216a
 bluebell, wild hyacinth, II-245a; Index p. 69
 Bluebird (blue robin) II-50b
 bluebottle, fly, II-50b; extermination of, XI-230a
 'Blue Boy', Gainsborough, V-178b
 blue bull (nilgai), antelope, II-18a
 blue fox VI-187a, 185b
 blueing, of metals, VIII-204b
 Blue John, fluorine, mineral, III-291a
 Blue Mts., S.E. Australia, I-48b
 Blue Peter, flag, IV-151b
 blueprint, drawing, VIII-111a
 Blue Riband award, Atlantic crossing, IV-437a
 Blues, American Negro music, XII-228a
 Blues, butterflies, II-51a
 Blues, *see* Horse Guards
 blue-throat, bird, II-342a
 blue tit, bird, II-431b
 Blue Train, Mediterranean express, IV-46b
 blue whale VI-483b
 blue wren, bird, II-161a
 Bo, sacred tree, I-102b
 Boa, snake, II-52a
 B.O.A.C. (British Overseas Airways Corporation) IV-97b

Boadicea (Boudicca, 1st cent. A.D.), warrior-queen, V-48a
 Boanerges, sons of thunder, Index p.124b
 boar, male pig, VI-330b; wild, II-421a; boar-hunting, IX-294b, 375a
 board foot, unit of measurement, timber, VI-446b
 Board Games IX-71a
 Board of Trade X-55a
 boarhound IX-294b
 Boat Building VIII-29a
 boat-drill, safety rules at sea, IV-384a
 boat-lift, canal mechanism, IV-238b
 boat-race, Oxford and Cambridge, IX-355b
 Boat-races IX-74a
 boats: canoes, IX-111a; motor, IX-324b; primitive, IV-331a; punts, IX-389b; rowing, IX-412a; sailing, IX-421b
 boatswain IV-409a, 414b
 boat-swain (tropic bird) II-438a
 bobbin net VII-263a
 bobcat (bay lynx) *illus.* II-79
 bobolink, bird, II-146b
 Boccaccio, Giovanni (1313-75), Italian novelist and poet, V-48b
 Boccione, Umberto (b. 1876), Italian sculptor, *illus.* XII-268
 bodhisattva, Buddhist saint, I-83a
 Bodiam Castle, Sussex, *illus.* IX-345
 Bodleian Library IV-46b
 Bodley, Sir Thomas (1545-1613), English scholar, IV-46b
 body, human, XI-4b; influence of mind upon, XI-314a
 Boehm, Theodore (1793-1881), flute player, IX-486b
 Boerhaave, Hermann (1668-1738), Dutch physician, XI-305a
 Boers, Dutch settlers in S. Africa, I-442a; X-423b
 Boer War X-423b
 Boethius, Amicus Manlius Severinus (c. A.D. 470-524), philosopher, XII-239a, 240a
 bog arum, plant, VI-479b
 bog asphodel, plant, II-245a
 boggart, goblin, I-162b
 Boghaz-Koi, ancient city of Asia Minor, I-228b
 bogies, of railway coach, IV-343b
 bog-moss, plant, II-277a
 Bogomilism, religion, I-85a
 Bogota, Colombia, S. America, III-99a; *map* III-415
 bogs, swamp-lands, III-300b; of Ireland, III-237a
 Bohemia, medieval kingdom, I-135a; church of, I-328a
 Bohemia, region, W. Czechoslovakia, III-119a, 457a
 'bohemian' I-135b
 Bohemians, Czechoslovaks, I-135b
 Bohr, Niels, Danish physicist, (1885-), III-36a
 Boiardo, Matteo Maria (c. 1441-94), Italian poet, XII-134b
 Boilers VIII-31a; locomotive, IV-241a; marine, VIII-266a
 Boiling, food preparation, XI-29a
 boiling-point, of liquids, VIII-176a
 boils XI-407b

- Bokhara (Bukhara), Uzbekiskaya, U.S.S.R., III-460b; I-447a; map III-459
- Bolan pass, N.W. India, III-226b
- boletus, fungus, II-170b
- Boleyn, Anne (1507-36), 2nd wife of Henry VIII, V-220a
- Bolivar, Simon (1783-1830), S. American liberator, V-49a
- Bolivia III-55a; map III-415
- Bolivians I-73a
- boll, grain measure, VI-11a
- boll-worms VI-466a
- Bologna, Italy, University, X-476a
- Bolshevik Revolution, *see* Russian Revolution
- Bolsheviks, revolutionaries, X-387b; I-415b; *see also* Lenin; Stalin; Trotsky
- Bolton, Lancs., cotton industry, VII-142b
- Bolton Wanderers football team IX-27b
- bolts XI-288a
- bomb aimer X-57a
- bombard, musical instrument, IX-487a
- bombardier beetle II-41a
- bombardon, brass instrument, IX-94a
- Bombay, *port*, W. India, III-56a; map III-229
- Bombay, *state*, India, X-205a; East India Company, VII-172a
- Bombay-duck, fish, II-239a
- bombazine, cloth, VII-138a
- Bomber Aircraft X-55b; air raids, X-12b; pilotless, X-180a
- Bomber Command X-12b
- bombing raids X-12b, 15a
- Bombs and Mines X-57a; guided missiles, X-178b
- Bonaire I., Dutch West Indies, III-484b
- Bonaparte, *see* Napoleon
- Bonaparte, House of, V-329b
- Bond, Stock Exchange, VII-45a
- bonding, of bricks, VIII-37b
- bone china VII-348b
- Bones and Joints XI-30a
- Boniface, St., of Crediton (680-755), I-124a; Index p. 134a
- Bonifacio, *port*, Corsica, III-114b
- bonito, fish, II-258b
- Bonito (Tunny) Fishing VI-54b
- Bon Marché, French shop, VII-157a
- Bonn, Germany, III-185b; map III-186
- Bonnard, Pierre (1867-1947), French painter, XII-352b
- bonnets XI-214a
- Bonnie Prince Charlie (1720-88) V-430b
- booby, bird, II-174b
- Boodle's, London club, IX-142b
- boogie-woogie, jazz, XII-228b
- Book IV-48a; illustration, IV-196a; printing, VII-360a; IV-333b; publishing, VII-368b; reference books, IV-356b; reviews, IV-50b
- Bookbinding VII-45b
- Book-collecting IX-77b
- Book-keeping VII-48a; 251a; accounting machine, VII-1a; auditing, VII-24a; costing, VII-135a; depreciation, VII-158a
- Booklouse, insect, II-53a; extermination, XI-230b
- bookmaker, of racecourse, IX-59b
- Book of Armagh, Irish MS., V-352a
- Book of the Dead, The, Egyptian sacred book, I-419b, 158a
- Book of Hours, prayer book, XII-203a; *illus.* I-123
- Book of Songs, collection of Chinese poetry, XII-74b
- Books, History of, IV-50b; bookbinding, VII-45b; illuminated manuscripts, XII-199b; libraries, IV-224b
- Book Sizes IV-54a; in bookbinding, VII-46b
- boom, economic, VII-439b
- boomerang, weapon, I-47a
- boosters, of railway locomotives, IV-242b
- Boot- and shoe-making VII-52b
- Booth, John Wilkes (1839-65), American assassin, X-47b
- Booth, William (1829-1912), founder of the Salvation Army, V-50b
- Bootle, Lancs., III-262b
- bootlegger, smuggler, X-418a
- Boots and Shoes XI-33a
- Bor, character in Norse mythol., I-343a
- Bora, wind, III-92a
- borage, plant, Index p. 67
- borax, chemical, as fertilizer, VI-37b
- bord-and-pillar mining, VII-112a
- Bordeaux, France, III-174b; map III-173
- Bordeaux mixture, fruit spray, VI-184b, 209a
- Bordeaux wines VII-471b
- Bore, tidal wave of R. Severn, III-441a; IV-404a
- boreal crown, Northern lights, III-38b; *illus.* III-32
- Boreas, the north wind, Index p. 138b
- borer moth II-185a
- borghetto (ghetto, Jewish quarter of town) I-192a
- Borgia, Caesar (1475-1507), Italian nobleman, V-51a
- Borgia, Lucrezia (1480-1519), daughter of Pope Alexander VI, V-51a
- Borgia, Rodrigo (Alexander VI, 1431-1503), pope, V-51a, 401b
- Borgia Family V-51a
- boring machines VIII-113b
- boring mills VIII-114b
- Borneo (Sarawak), I., East Indies, III-143b; peoples, *see* Indonesians
- Borodin, Alexander (1833-87), Russian composer, XII-366b, 312b
- boron, chemical, III-291a
- borough X-247b
- borough council X-242a, 248a
- Borrow, George Henry (1803-81), English writer, V-52a
- Borrowdale, Cumberland, graphite, VII-214a
- borsch, soup, XI-418b
- Borstal X-59b
- bort, diamond, VII-159a, 160b
- borzoi, dog, IX-192b
- Bosanquet, B. J. T., cricketer, IX-162b
- bosch-vark (bush-pig) II-421b
- Bosnia, *region*, Yugoslavia, III-494a
- bos'n's pipe IV-414b
- Bosporus, Mediterranean/Black Sea Channel, III-55a, 240a
- Bossuet, Jacques Bénigne (1627-1704), French divine, XII-192b, 413b
- Boston, U.S.A., III-56b; map III-451
- 'Boston Tea Party' X-26a
- Boswell, James (1740-95), biographer of Samuel Johnson, V-249b; XII-105a; *Life of Johnson*, XII-44a
- Botanical Gardens IX-78b
- Botanical Names VI-55b; classification of plants, II-89a
- botany II-322b; flowers, II-157b; fruits, II-166a; seeds, II-378b; Index p. 63
- Botany Bay, Australia, I-48a; map III-41
- bot fly VI-168b
- Botha, Louis (1862-1919), South African general and statesman, V-417b; X-424a, 423a
- Bothwell, Earl of (c. 1536-78), V-299a
- bothy, hut, VI-132a
- botrytis, plant disease, VI-266b
- Botticelli, Sandro (c. 1445-1510), Italian painter, V-52b; *illus.* XII-324, opp. p. 16
- Bottling (Beer) VII-54b
- bottling, food, XI-181a, 182b
- botulism, poisoning, XI-181a
- Boucher, François (1703-70), French painter, XII-161b
- Bougainville, Louis de (1729-1811), French navigator, III-201a
- bouillabaisse, soup, XI-418a
- boulder-clay III-379a, 191b
- Boulder Dam, Colorado, U.S.A., VIII-34a
- Boullé, André Charles (1642-1732), French cabinet-maker, VII-244b
- Boulton, Matthew (1728-1809), industrialist and engineer, V-473a; VII-379b
- Boundaries, Land, VI-56a; I-151a
- 'boundary layer', aerodynamics, VIII-217a
- Bounty, H.M.S., IV-54b
- Bourbon (Réunion) I., Indian Ocean, III-230b; map III-322
- Bourchier, Arthur (1867-1927), British actor-manager, VII-178b
- bourdon pressure gauge VIII-334a
- Bournville, nr. Birmingham, Warws., V-67b; *illus.* V-68; VII-89
- Bouts, Dirk (d. 1475), Flemish painter, XII-235b
- bower bird II-43a; *illus.* II-16
- Bowery, *district*, of New York, U.S.A., III-312a
- bowling, cricket, IX-156a
- Bowls IX-79a
- bows and arrows X-489a; IX-20a; fish shooting, VI-162a; prehistoric, I-383a
- bowsprit, of sailing craft, IX-422b
- Bow Street Runners X-324b
- box, tree, VI-450b
- Boxers, Chinese secret society, X-405b
- box-fish (trunk-fish) II-326b
- Boxing IX-80b
- Boxing, History of, IX-81b
- boxing champions IX-82a
- Boxing Day IX-286a
- Boyce, William (1710-79), English composer, XII-398b, 17b

- Boyle, Robert (1627-91), pioneer of British science, V-53a; VII-98b
 Boyle's Law III-354a; VIII-176a
 Boyne, river, Irish Republic, III-236a
 Boys' Brigade, The, IX-85a
 boys' clubs IX-140a
 Boy Scouts IX-85b; I-474b
 Brabazon I, aircraft, IV-56a
 brace, tool, *illus.* VII-82
 bracken, fern, II-142b
 bradawl, tool, *illus.* VII-82
 Braddock, Edward (1695-1755), British general, V-470a
 Bradford, Yorks., industries, VII-486a, 396a
 Bradlaugh, Charles (1833-91), English rationalist thinker, I-394a
 Bradman, Sir Donald (b. 1908), Australian cricketer, IX-162b, 164b
Bradshaw's guide, railway, IV-454a
 Braemar gathering, Highland games, IX-277a
 brag, card game, IX-384a
 Bragi, god, Norse mythol., I-344b
 Brahe, Tycho (1546-1601), Danish astronomer, III-24a
 Brahma, Aryan god, I-198b; in Hindu religion, I-350b
 Brahman cattle VI-84a
 Brahmaputra, river, India, III-227b; *map* III-229
 Brahmin caste I-240a, 96a
 Brahms, Johannes (1833-97), German composer, V-54a
 Brahui tribe, N.W. India, I-245b
 Braille, blind alphabet, IV-57a
 Braille, Louis (1809-52), French teacher of the blind, IV-57a
 Brain: human, XI-35a; animal, II-53a, 259b
 brains, offal, XI-338b
 Brains Trusts, radio programme, IX-88a
 Braising, food preparation, XI-36a
 brake horse-power (b.h.p.) VIII-37a; measuring machine, VIII-115a
 Brakes and Braking VIII-35b; air brakes, IV-57b; hydraulic brakes, VIII-214a
 brakes, aircraft, IV-10b
 Brakes, Railway, IV-57b
 brakes, road vehicle, IV-270b, 273b
 Bramah, Joseph (1748-1814), British engineer, VIII-213a, 275a
 Bramante, Donato (c. 1444-1514), Italian architect, V-55a
 brambling, bird, II-145a
 bramley's seedling, apple, VI-29a
 bran, wheat product, VII-194a
 Brancusi, Constantin (b. 1876), Roumanian sculptor, XII-267b
 Brand, Jan Hendrick (1826-88), president of Orange Free State, I-442b
 Brandenburg, province, Germany, III-51b
 Brandenburg Concertos, J. S. Bach, V-28b; XII-94b
 brank (buckwheat) VI-58b
 brangle, dance, IX-50a, 174b
 Braque, Georges (1881-) French painter, XII-266b
 brass VIII-6b-7b; *illus.* VIII-8
 Brass Bands IX-89a
 Brasses, memorial, XII-45a
 brassica, cabbage, VI-65a, 301a
 brassières XI-188a
 Brass Instruments, musical, IX-90a
 brass-rubbing XII-46a
 Bratislava, port, Czechoslovakia, III-119b; *map* III-121
 Brawne, Fanny, *see* Keats
 braxy, animal disease, VI-19b
 Brazil, S. America, III-57a, 414a; grasslands, III-196b; Indians, I-9a
 Brazil current, S. Atlantic Ocean, III-324a
 Brazilian plateau, S. America, III-416b
 Brazilians I-74a
 brazil nuts VI-296b
 brazilwood tree I-74b
 brazing, soldering, VIII-398b
 breach of promise X-92a
 breadfruit VI-464a
 Breadmaking XI-36b; industry, VII-25a
 Breakdown Train IV-59a
 breakwaters VIII-165b, 107a
 bream, fish, II-74a; IX-16b; sea-bream, II-372b
 breast-feeding of babies XI-13a, 23b
 breast-plate, armour, *illus.* X-37b
 breathing: of humans, XI-381a; of animals, II-348b; of plants, II-349b; breathing roots, II-356b
 breccia, rock, III-105b
 breech, armour, *illus.* X-37b
 breeches XI-87b-91a
 breeding, livestock, VI-426b; II-205a
 breeding, plant, VI-336a
 breeze-fly (horse-fly) II-212b
 Bremen, port, N.W. Germany, III-185a; *map* III-186
 bren carrier X-442a
 bren gun X-491a; I-136b
 Brenner pass, Austria/Italy, III-11a
 Bretons XI-149a; *illus.* I-187b
 Bretton Woods Conference X-211a
 breviary, prayer book, I-375a
 breweries, *see* beer brewing
 briar, sweet II-358a
 Briareos, monster, Greek mythol., I-194a
 briar pipe VI-323a
 briar wood III-114b
 bricklaying VIII-38a; *illus.* VII-66a
 bricks, strength of, *table* VIII-47
 Bricks and Tiles VII-56a; 'air bricks', XI-96a; *see also* walls
 Brickwork VIII-37a
 Bridewell, prison, X-338a
 Bridge, card game, IX-94b
 Bridge Building VIII-39a; stress and strain, VIII-419a
 Bridge of Sighs, Venice, Italy, III-463b
 Bridges IV-59b, 161a
 Bridges, Railway, IV-63b
 Bridges, Robert Seymour (1844-1930), English poet, V-55b
 Bridget, St., Index p. 134a
 Bridgewater Francis Egerton, Duke of (1736-1803), canal-builder, IV-81b
 brig, sailing-vessel, IV-390b
 brigade, military, X-41b
 Briggs, Henry (1561-1631), mathematician, IV-115b
 Brighthouse, Yorks., silk industry, VII-396a
 Bright, John (1811-89), orator and politician, V-97a
 Brighton, Sussex, XII-373a; IX-425b
 Brighton Pavilion XII-78a, 373b
 Brighton Road IV-66a
 brill, fish, II-152b
 brilliant, diamond, VII-159a
 brimstone butterfly II-484b
 brimstone moth II-255a
 Brindley, James (1716-72), British engineer, IV-81b; VIII-60b
 brine VII-382b; III-390b
 Brisbane, Queensland, Australia, III-58b; *map* III-41
 Brisingamen, necklace, Norse mythol., I-344b
 brisling, fish, II-207b
 Bristle Fly (tachinid) II-54a
 bristle-tail (silverfish) II-391a
 bristles, for brushes, VII-60a
 bristle worm II-479b, 480b
 Bristol, port, Glos., III-59a; VII-400b
 Bristol University X-346b
 Britain, *see* Great Britain; *see also* England; Ireland; Scotland; Wales; British peoples
 Britannia Tubular Bridge, Menai Straits, IV-64a
 British Academy XII-1b
 British architecture XII-48a; church architecture, XII-78b; Georgian, XII-167a; Gothic Revival, XII-180a; Palladian, XII-33b; Regency, XII-372a
 British Art XII-46a; landscape painting, XII-237a; portrait painting, XII-351b
 British Association V-125b
 British Broadcasting Corporation IV-67b; broadcasting techniques, IX-95b; children's hour, IX-127a; commentaries, IX-98a; monitoring service, IV-207b; overseas service, IV-206b; programmes, IX-99a
 British Columbia, province, W. Canada, III-70b; *map* III-69
 British Commonwealth X-61a; Statute of Westminster, X-431b
 British Commonwealth, government: Australia, X-48a; Canada, X-68b; Ceylon, X-76b; colonies, X-101a; India, X-204b; New Zealand, X-300b; Pakistan, X-309a; Rhodesia, X-373a; South Africa, X-422b
 British Constitution X-63a; parliament, X-312b; party system, X-329a; privy council, X-342b; *chart*, Index p. 56
 British Council X-63b
 British Drama League IX-201a
 British Empire, *see* British Commonwealth; *map* Index p. 55
 British Empire, Order of the, X-187b
 British Empire Exhibition (1924-5) VII-184a
 British European Airways (B.E.A.), IV-97b
 British folk dancing IX-236a
 British and Foreign Schools Society X-484a
 British Guiana, S. America, III-207a; *map* III-415; government, X-102a; peoples, I-487b

- British Honduras, Central America, III-78a; *map* III-78; people, I-488a
- British Horse Society IX-386a
- British Isles, *see* Great Britain; *see also* England; Ireland; Scotland; Wales
- British Isles topography, Index p. 81
- British Israelite I-75b
- British Museum, London, XII-28a; X-276a; XII-370a
- British Museum Library IV-66b
- British New Guinea, East Indies, I-251b
- British North America Act (1867), I-92b; X-68b
- British North Borneo, East Indies, I-251b
- British North Borneo Company VII-97a
- British Overseas Airways Corporation (B.O.A.C.) IV-97b
- British Peoples I-76b; conversion to Christianity, I-124a; racial features, I-390a
- British Pharmacopoeia VII-285b
- British Restaurants VII-90b
- British Road Services, Government organization, IV-277a
- British Show Jumping Association IX-293a
- British South Africa Company I-403b; VII-97a
- British Thermal Unit (B.Th.U.), fuel measurement, VIII-172a
- British United Press IV-298a
- British waterways IV-38b
- British white cattle VI-79a
- Britons, ancient, I-77a, 257b, 37a
- Britons, *see also* British Peoples
- Brittany, province, N.W. France, III-175a; I-187a; *map* III-173
- Britten, Benjamin (b. 1913), English composer, XII-270a; IX-349b
- Brno (Brunn), Czechoslovakia, III-119b
- broaching, of metals, VIII-262b
- broad bean VI-43b; II-378b
- Broadcasting IX-95b; IV-428b; advertising by, IV-68b; censorship in war, X-76a; commercial or sponsored, IV-68b; international, IV-206a; news, IV-295a; short-wave beam, IV-410b
- Broadcasting, History of, IV-69b
- Broadcasting Commentaries IX-98a
- Broadcasting Corporations IV-67b
- Broadcasting Programmes IX-99a
- Broadmoor criminal lunatic asylum X-118b
- broadside, size of printing paper, IV-54b
- broad-sides, early printed publications, IV-196b
- broadtail, skin, VII-200b
- broccoli, cabbage, VI-65a, 67b
- broderie Anglaise, needlework, XI-319b
- Brogan, Ring of, Orkney Is., N.E. Scotland, III-328a
- broiling, food preparation, XI-204b
- Broken Hill, New South Wales, Australia, III-42a; *map* III-41
- Broker VII-59a, 281b; commission, VII-126a
- Bromo, Mt., Java, East Indies, *illus.* III-468
- bronchi, tubes in breathing system of animals, II-349a
- bronchitis XI-382b
- Bronstein, Leo Davidovich (Trotsky, 1877-1940), Russian revolutionary, V-450b
- Brontë, Anne (1820-49), V-56a
- Brontë, Branwell (1817-48), V-56a
- Brontë, Charlotte (1816-55), English novelist, V-56a
- Brontë, Emily (1818-48), English novelist, V-56a
- brontosaurus, prehistoric animal, III-353a
- Bronx, district, New York, U.S.A., III-312a
- bronze VIII-6b
- Bronze age I-378b; *table* I-37b; art, XII-358a, 51a; pottery, I-381b; tools, I-383b
- Bronze Sculpture XII-49b
- brooches and pins XI-118a
- brooder pneumonia, disease of chickens, VI-22a
- Brooklands, racing track, IX-103a
- Brooklyn, district, New York, U.S.A., III-312a
- Brooks's, London club, IX-142b
- broom, heath plant, II-200b, 380b; family, Index p. 68
- broomrape, parasitic plant, II-309a
- broth XI-417b
- Brothers Karamazov, *The*, Dostoevsky, V-143b
- brougham, horse-carriage, *illus.* IV-87
- Brouwer, Adriaen (c. 1605-38), Flemish painter, XII-166b
- Brown, Capability (Lancelot Brown 1716-83), English landscape gardener, V-58a
- Brown, Ford Madox (1821-93), English painter, XII-360b-361b; *illus.* XII, opp. p. 16
- Brown, John (1800-59), leader of anti-slavery movement in America, V-57b
- brown coal VIII-172a; III-96b
- brown-eye, moth, II-291a
- brown hairstreak butterfly II-194a
- brown heart, plant disease, VI-37b
- brownie, fairy, I-162b, 169b
- Brownies, Girl Guide Movement, IX-254a
- Browning, Elizabeth Barrett (1806-61), poet, V-58a; sonnets, XII-430a
- Browning, Robert (1812-89), English poet, V-58a
- 'Brownists', Protestants, I-129b
- brown owl, bird, II-305b
- brown rot, fruit disease, VI-341a
- Browns, butterflies, II-54b
- brown-tail moth II-442b
- Bruce, Robert (1274-1329), King of Scotland, V-59b, 466b
- Brueghel, Pieter (c. 1525-69), Flemish painter, V-60b; XII-151b, 166b
- Bruges, Belgium, III-50a
- brumbies, wild horses, II-212b
- Bruneau, Alfred (1857-1934), French composer, XII-312a
- Brunel, Sir Isambard Kingdom (1806-59), British engineer, IV-436, 64b; VIII-361a, 467a
- Brunelleschi, Filippo (1377-1446), Italian architect, V-61a; XII-215a
- Brunswick, N. Germany, III-185b; *map* III-186
- Brushes VII-60a; XI-65b
- 'brushes', of electric generators, VIII-130a
- 'brushes', of electric motors, VIII-134a
- Brush Turkey, bird, II-56b
- Brussels, Belgium, III-60a; *map* III-160; lace, VII-262a; tapestry, VII-426b
- brussels sprouts VI-65b, 68a
- Brussels Treaty (1948) X-213b
- Brut, early English poem, XII-29a
- Brutus, Marcus Junius (85-42 B.C.), Roman statesman, V-253b
- bruyère, heath plant, III-114b
- bryony, climbing plant, II-91a
- Brythons, Celtic tribe, I-77a
- B.Th.U. (British Thermal Unit), fuel measurement, VIII-172a
- buccaneers IV-318a
- bucchero, pottery, XII-142b
- buccina, ancient musical instrument, IX-340a; *illus.* IX-339
- Bucephalus, horse of Alexander of Macedon, V-9a
- Bucharest, Roumania, III-60b; *map* III-160
- buckhounds, hunting dogs, IX-442b
- buck hunting, IX-442b
- Buckingham, George Villiers, Duke of (1592-1628), V-83a
- Buckingham Palace, London, X-380a
- Buckinghamshire, in county cricket, IX-159b
- Buckwheat (brank) VI-58b
- Bucolics, pastoral poems of Virgil, V-461a
- Budapest, Hungary, III-61a; *map* III-160
- Buddha (Siddhartha Gautama, c. 6th cent. B.C.) V-184b; I-82a
- Buddhism I-81b, 240b; in China, I-114b
- Buddhist art XII-206a, 73a; pagodas, XII-323a
- Buddhist sacred books I-420a
- Buddhist temples I-83a, 102b; III-47b
- budding, form of grafting, VI-182a
- budding, reproduction, plants, II-345b
- buddleia, flowering shrub, VI-165a
- budgerigar, parrot, II-310b; IX-107b; *illus.* IX-108
- budget, family, XI-153b
- budget, national, X-285a, 314b
- Budgetary Control VII-61a
- Buenos Aires, Argentina, S. America, III-61b; *map* III-415
- Buffalo, port, Lake Erie, U.S.A., III-202a; *map* III-318
- Buffalo II-56b; as beast of burden, IV-43a; *illus.* VI-461; water buffalo (Asiatic), VI-22b; II-58a
- 'buffalo' (bison), of N. America, II-47b; I-11a
- Buffalo Bill (William F. Cody) (1846-1917), American showman and cowboy, IX-136b; II-47b
- buff-arches moth II-311b
- Buffon, Georges Louis Leclerc de (1707-88), French natural scientist, V-124a
- Bufs, *see* Royal East Kent regiment
- buff-tip moth II-330a

- Bug**, insect, II-58a; VI-25b
Bug, river, Ukraine, U.S.S.R., III-54b
buggy, American horse-carriage, *illus.* IV-87
bugle, brass instrument, IX-90a, 94a
bugle, plant, Index p. 68
bugloss, plant, Index p. 67
bugong moth II-291a
buhl-work, furniture, VII-244b
building boards VII-20b
Building Construction VIII-42a, 47a;
 arch, XII-20a; VIII-40a; prefabrication, VIII-331a; shoring and underpinning, VIII-394b; skyscrapers, XII-422b; vaulting, XII-463a; walls, VIII-38a
building design XII-21a, 100a; VIII-44b; modern architecture, XII-263a
Building Industry, History of, VII-62a
Building Industry, Organization, VII-65b
building materials VIII-46a; table of strengths, VIII-47; bricks and tiles, VII-56a; cement, VII-90b; concrete, VIII-88b; steelwork, VIII-419a; woodwork, VII-474b, 80b
Building, Principles of, VIII-44b
Building Societies VII-68b
buildings, public, XII-368a
Bukhara (Bokhara), Uzbekiskaya, U.S.S.R., III-460b; *map* III-459
Bulawayo, S. Rhodesia, III-369b
Bulbs, Corms, and Tubers VI-59a; II-410b
bulbs: bedding plants, VI-46b, 47b; greenhouse plants, VI-217a; herbaceous border, VI-231b; irises, VI-253a; lilies, VI-265a; onion crops, VII-303b; window boxes, VI-491a
Bulbul, bird, II-59a
Bulgaria III-62b; *map* III-160
Bulgarians, E. European peoples, I-84a; language, IV-420a; national dress, XI-150a
bulkheds, of ship, VIII-49b
Bulk Purchase VII-69b
bull VI-75b, 76a; *illus.* VI, opp. p. 80; wild, II-80a
bull, stock exchange, VII-411a
bull-baiting, medieval sport, IX-56b
bull-block, wire-drawing machine, VIII-489b; *illus.* VIII-490
bull board, game, IX-178a; *illus.* IX-177
bull-dog IX-56b
bulldozer, tractor, IV-456a; VIII-214a; *see also* track mechanism
bull-fighters' dance IX-236a
Bullfighting IX-103b
bullfinch, bird, II-145b; VI-490a
bull-frog II-166a
bullhead, fish, II-367a; IX-15b
bullion, gold, VII-213a
bullock VI-75a; as beast of burden, IV-43a
Bumble-Bee II-59b, 36a
bumping-races, boat-racing, IX-75a
bunsen burner VIII-86a
bunt, aircraft acrobatics, IV-1b
bunt, wheat disease, VI-340a
bunting, bird, II-144a, 145b
Bunyan John (1628-88), English pastor and writer, V-61b; *Pilgrim's Progress*, XII-343b
Buoynancy VIII-48a; centre of, VIII-49a
Buoys IV-71a
B.U.P. (British United Press) IV-298a
Burbage, Richard (c. 1567-1619), Elizabethan actor, IX-6b
burbot, fish, II-94a
burdock, plant, II-380a; Index p. 71
bureau, writing, XI-54b
Bureaucracy X-64a; Civil Service, X-96b
burgess X-260b
burgh, borough, Scotland, X-250b
burgher class, medieval towns, XI-413b
Burghers, Ceylon peoples, I-102a, 103b
Burghley, William Cecil, Baron (1520-98), Lord High Treasurer of England, V-76b
burglar alarm VIII-324b
burglary X-120a
burgomaster X-253a
Burgoynne, John (1723-92), British general, X-26a
Burgundians I-184a
burgundy, wine, VII-471b
Buri, character in Norse mythol., I-343a
burial ceremonies I-139b
burial mounds I-65a
Burke, Edmund (1729-97), Irish politician, orator, and writer, V-62b
Burlington, Richard Boyle, 3rd Earl of (1695-1753), XII-34a
Burma III-63a; *map* III-229; government of, X-63a
Burma Road IV-71b
Burmese I-85a; language of, IV-94b
Burne-Jones, Sir Edward (1833-98), painter, V-322a-323a
Burnet and Forester Moths II-60b
burnet-rose II-358a
Burney, Fanny (1752-1840), XII-132b, 104a
Burnham Scale, salaries, X-447b
burning, *see* combustion
Burnley, Lancs., III-274a
Burns, Robert (1759-96), national poet of Scotland, V-63b; XII-249b, 45a
Burns metre, poetry, XII-471a
burns, treatment of, XI-169b
Burschenschaft, German student club, X-480a
Bursledon, Hants, naval base, X-292b
Burton, Decimus (1800-81), architect, XII-373b
Burton, Sir Richard (1821-90), British explorer, V-65a
Burton-on-Trent, Staffs., brewing, VII-40b
Bury, Lancs., wool industry, VII-487a
Buryats, Mongolian peoples, I-437b
burying beetle II-41a
Bus IV-72b; London Transport, IV-245a; maintenance, IV-279a; trolley, IV-465b
Bus and Coach Stations IV-75a
bus-bars, of electric switchgear, VIII-430b
Busch, President of Bolivia 1937-9, I-73b
bush babies (galagos), mammals, II-243a
bush cow, buffalo, II-58a
bush dog II-122a
bushel, measure, VI-10b
bush-master, viper, II-446b
Bushmen, of SW. Africa, I-87a; art, XII-6b
bush pig (bosch-vark) II-421b
Bush-rangers X-64b
bush telegraph (African tribal signals) IV-416a
bushveld, region, S. Africa, III-412b
Business Organization VII-69b, 383a; financial management, VIII-61a; limited companies, VII-267b; office equipment, VII-313a
buskers, street entertainers, IX-446b
Buss, Frances Mary (1827-94), British educationalist, X-353a
Bustard, bird, II-61a; IX-249b
bustle, foundation garment, XI-188a
'but and ben' cottages XI-387a
butane, gas, VIII-174a; III-84a
butcher-bird (shrike) III-389b
butcher's broom, desert plant, II-246b, 119a
butchery VII-283b
Butler, Joseph (1692-1752), bishop and divine, I-393b
Butler, Samuel (1612-80), English satirist, XII-405a
Butler, Samuel (1835-1902), writer and scholar, V-65a
butt, cask; *illus.* VII-86
butter VII-154b
buttercup II-157b, 166b; Index p. 64
Butterfield, William (1814-1900), English architect, XII-180b
Butterflies II-61b; communication, II-13b
Butterflies and Moths II-64b
Butterfly and Moth Collecting IX-105b
Butterfly and Moth Pests VI-61b
butterfly-fish II-373a
butterwort, insect-eating plant, II-218b; *illus.* II-219
button nut palm VI-314b
buttons and buttonholes XI-118a
buttress, church architecture, XII-80b; *illus.* XII-79
butty boat, canal boat, IV-38a
buzzard, hawk, II-196b
buzzard-eagle, II-127b
Bwardi, Arabs, Libya, III-257b
B.W.D. (bacillary white diarrhoea), poultry disease, VI-361b
Byblos (Gabal), ancient Syria, I-363b, 21b
by-election X-147a
Byelorussia (White Russia), republic of U.S.S.R., III-64b
By-laws X-65b
Byng, John (1704-57), British admiral, X-116
by-pass roads IV-370b
By-products VII-72a; of china clay, VII-104a; of gas, VII-203a
Byrd, Richard Evelyn (1888-), American explorer, III-349a
Byrd, William (c. 1543-1623), English composer, XII-17a, 98a, 427b
Byron, George Gordon, Baron, (1788-1824), English poet, V-65b; *Satire*, XII-406a
Byzantine architecture XII-53b, 106b

Byzantine Art XII-52b
 Byzantine Empire I-88a; *map* I-23;
 peoples, XII-52b; trade, VII-444a
 Byzantium, ancient Greek city, I-88b;
 III-240a; *map* I-23

cab IV-443a
 cabaret, entertainment, IX-336a
 cabbage, flower, Index p. 64
 cabbage, red, II-319b
 Cabbage Crops, Field, VI-64a
 Cabbage Crops, Garden, VI-65a
 cabbage moth II-291a; VI-62a
 cabbage pests VI-125a, 51a
 cabbage white butterfly II-470b; VI-61b
 caber, tossing the, Highland sport,
 IX-278b
 cabinet government X-266b
 Cabinet-making VII-74a; XI-196a; in-
 lay and marquetry, VII-243a; woods
 used for, VII-223a
 cabinets, furniture, XI-54b
 Cable, speech transmission, IV-76a
 cable belt conveyor VIII-95b
 cable railways IV-283b
 Cables, Electrical, VIII-50a; XI-130b
 Cable Ship IV-77b
 cable tramways IV-462a
 'cablese', cable abbreviations, IV-297b
 Cabot, John (d. 1498), Genoese ex-
 plorer, V-67a
 Cabot, Sebastian (c. 1483-1557), Geno-
 ese explorer, V-67a
 Cabot Strait, Newfoundland/North
 America, III-310b
 cabriolet, horse-carriage, IV-443a
 Cacao VI-68a
 cacao bark louse VI-466a
 cacao borer VI-466a
 cacao mosquito VI-466a
 cacomistle (cunning cat squirrel) II-339b
 Cacti, hothouse, VI-69a
 Cactus II-67a
 Cadbury, George (1839-1922), English
 business man and social reformer,
 V-67b
 Cadbury Bros., British cocoa and
 chocolate manufacturers, VII-119b
 caddie, attendant, golf, IX-261a
 Caddis Fly II-68a
 caddis moth, false, II-85b
 caddis-worm II-68a
 cadence, in music, XII-257a
 cadenza, of concerto, XII-95b
 Cader Idris, *mt.*, N. Wales, *illus.* III-191
 cadet, naval, IV-408b; VII-19a
 Caedmon (d. c. 680), Anglo-Saxon poet,
 XII-131a, 460a
 Caen abbey, France, *illus.* XII, opp. p.
 385
 Caerdiike, Roman canal, Lincs., IV-
 81b
 Caernarvon castle, N. Wales, I-133b
 Caesar, *see* Augustus Caesar; Julius
 Caesar
 Caesarea, city of Palestine, Index p. 125a
 Caesarean operation XI-23a
 caesium, metal, VIII-324a
 Cage Birds IX-107a
 Caiaphas, Jewish high priest, Index p.
 125a
 caiman (jacara), crocodile, II-107a

Cain, son of Adam, Index p. 125a
 cairn (heap of stones covering ancient
 burial) I-65a
 cairngorm, mineral, III-374b
 Cairns, *port*, Australia, III-200b; *map*
 III-41
 Cairo, *port*, Egypt, III-65a; I-162a;
map III-5; Al Azhar University, X-
 476a
 Cairo, Illinois, U.S.A., III-293b
 caisson, diving bell, VIII-107a
 caisson, dock-gate, IV-129a
 caisson pontoons VIII-107b
 caisson sinking, underwater construc-
 tion, VIII-39b
 Caius, Dr. (1510-73), physician, IX-
 190a
 cake-making XI-39a; industry, VII-26b
 Cakes XI-38a, 130b
 cake-urchin (sea-urchin) II-378a
 Calais, France, English wool trade,
 VII-292a; *illus.* VII-291
 calamine, mineral, III-285b
 calamus (reed pen) IV-495b
 calceolaria, plant, VI-25b
 Calchas, seer, Greek mythol., I-209a
 calcite, mineral, III-291a; *illus.* III-
 289a, opp. p. 288
 calcium, element, III-261a; in bones,
 XI-30a, 139b; in diet, XI-186a; in
 animal food, VI-170a
 calcium carbonate III-261a; *see also*
 chalk; lime
 calcium citrate VI-89b
 calcium cyanamide VI-481b
 Calculating Machines VIII-51b; IV-
 116a; accounting machines, IV-1a
 calculation IV-115a, 112b; logarithms,
 VIII-259b
 Calculus VIII-55b
 Calcutta, *port*, India, III-65b; *map* III-
 229
 Calcutta Cup, Rugby Football, IX-
 417b
 Calderón de la Barca, Pedro (1600-81),
 Spanish dramatist, XII-108a
 Caledonian Canal IV-82b
 Calendar III-66b; of Christian Church,
 I-122b
 Calendar stone, Aztec, I-56a; *illus.* I-55
 calendaring, manufacturing process:
 cotton, VII-142a; linoleum, VII-
 270b; paper, VII-329a
 calendula (marigold) VI-24b, 47a, 114a
 Calgary, Alberta, Canada, III-70b; *map*
 III-318
 calibre, gun, X-44a
 California, *state*, U.S.A., III-454a,
 451a; Big Trees of, II-96b; Central
 Valley Project, VIII-68a; gold rush,
 VII-211b
 Caliph (Khalifa), Moslem leader, I-29a,
 261a
 Callao, *port*, Peru, III-261a
 Callimachus, 3rd-cent. B.C. Greek poet,
 XII-188b
 Callinus of Ephesus (possibly 7th cent.
 B.C.), Greek poet, XII-187b
 Calliope, Greek muse, I-329a
 Callot, Jacques (1592-1635), French
 engraver, XII-140a; *illus.* X-441,
 486, 376
 Calor gas VIII-174a

calorie, unit of heat measurement, XI-
 335a; calorific value of fuels, VIII-
 172a, 180b
 Calories, food, XI-335a, 184b
 calorifier, of central heating systems,
 VIII-198a
 calotype process, photography, VII-
 339a
 calumet peace-pipe IV-492b
 calves VI-81a, 75a
 Calvin, John (1509-64), French leader
 of the Reformation, V-69a
 Calvinist I-91a; *chart* I-118
 Calypso, nymph, Greek legend, Index p.
 138b
camanachd (shinty), national game of
 Scottish Highlands, IX-426b
 Camargo, Marie Anne de Cupis de
 (1710-70), French dancer, IX-47b
 Camargo Society, British Ballet Society,
 IX-48b
 Camberley, Army Staff College, X-431a
 Camberwell beauty, butterfly, II-445b
 Cambodia, *state*, Indo-China, III-232a;
map III-87
 Cambrian mountains, Wales, III-470b
 Cambrian period, of earth's history,
 III-138b; *chart* III-139
 Cambridge, U.S.A., III-57a
 Cambridge Festival Theatre IX-403a
 Cambridgeshire, *co.*, III-157a
 Cambridge University X-67a, 478a;
 boat-races, IX-355b, 75a; under-
 graduate life, X-480b; University
 Extension Movement, X-5a
 Cambridge University Library IV-79a
 Camel II-68b; as beast of burden, IV-
 41b; caravan, IV-122a
 'camel-back' locomotives IV-242b
 camel-hair VII-220b
 camellia, flowering shrub, VI-217b,
 324b
 Camera VIII-56b; IX-370b; cinemato-
 graph, VIII-72b; IX-132a; high-
 precision, VIII-59a; high-speed,
 VIII-207b; *see also* photography
 Camera, Miniature, VIII-59a
 Camera, Reflex, VIII-60a
 Cameron Highlanders X-366b
 Cameroons, Guinea Lands, West Africa,
 III-208b; *map* III-5
 Camoens, Luis de (c. 1524-80), Portu-
 guese poet, XII-134b
 Camorra, Italian secret society, X-406b
 camouflage, against air attack, X-9a,
 13a
 camouflage, of animals, II-70b
 Campagna, *plain*, Italy, III-242a
 Campaldino, Battle of (1289), V-120b
 Campanile (bell-tower), Florence, Italy,
 III-167b
 campanology (bell-ringing) IX-57a
 campanula (bell-flower) II-4b, 168a;
 Index p. 66
 camphor VI-302a
 Camping IX-109a
 Camping Club of Great Britain, IX-110b
 campion, plant, II-168a, 324a; *illus.*
 II-380; Index p. 64
 Campion, Thomas (d. 1619), English
 poet, IX-316a
 campos, grasslands, III-196a, 58a
 camps, holiday, IX-283a

camps, prehistoric, I-150b
 camshaft, of petrol engine, VIII-230b
 camwood, tropical tree, II-438a
 Canaan, land of ancient Palestine, Index p. 125a
 Canaanites, Semitic people, I-92a, 433 a, 217a
 Canada III-69a, 317b; arctic lands, III-346a; discovery of, V-73a; early history, X-105a; Eskimoes, I-162b; French defeat by Wolfe, V-487b; Hudson Bay Company, VII-233a; Indians, I-9b
 Canada, Government of, X-68b
 Canadian canoe IX-111a
 Canadian Mounted Police, Royal, I-94a
 Canadian Pacific Railway IV-354b
 Canadians I-92a
 canal-boat IV-37b
 Canal Building VIII-60b
 Canaletto, Giovanni Antonio (1697-1768), Venetian painter, XII-467a, 236a; *illus.* IX, opp. p. 208
 canalization of rivers IV-362b
 Canals IV-79b, 37b; dredging, IV-130a; locks and weirs, IV-237a
 canals: Kiel, IV-215a; Panama, IV-307a; Russian, IV-382a; Suez, IV-440b
 Canals, British, IV-81b; Caledonian canal, IV-82b; Manchester ship canal, IV-249b
 'canals' of Mars III-342b
 canapés, savouries, XI-399a
 Canaries current, Atlantic Ocean, III-324a
 canary, bird, II-144a; IX-107a
 Canary Islands III-71b
 Canberra, New South Wales, Australia, III-72a; *map* III-41
 Canberra, aircraft, X-56b
 Cancer, disease, XI-40b
 Cancer (Crab), constellation, III-108a
 Cancer, Tropic of, III-92a; *illus.* III-90
 candela, unit of measurement, VIII-225a
 Candia (Erakleion or Megalokastron), Crete, III-116b
 Candide, Voltaire, V-463a
 candle-clock VIII-455a
 candle fly II-239a
 Candlemas, Christian festival, IX-284a
 candles XI-285a
 candytuft, flower VI-25a, 47a; Index p. 64
 Canea (Khanía), port, Crete, III-117a
 cane spot, fruit disease, VI-373a
 cane-sugar VI-433b
 Cango caves, S. Africa, *illus.* III-77
 cannabis sativa, hemp, VII-377b
 Cannae, Battle of (216 B.C.), V-208a
 Cannibalism I-95a, 294b
 canning, food, XI-181a
 Canning, George (1770-1827), British statesman, V-70a; I-34b
 Canning Industry VII-77a; 217a
 Canning jewel XI-268b; *illus.* XI, opp. p. 224
 cannon, artillery, X-44a
 Canoe IV-83a, 332a
 Canoeing IX-111a
 canon, cathedral clergy, I-127a

canon, musical form, XII-286a
 canonical hours, of monastery, I-325a
 Canon Law X-69b; divorce, X-133b
 Canova, Antonio (1757-1822), Italian sculptor, XII-455b
 Cantata XII-57a
 canteen VII-90b; *illus.* VII-89
 Canterbury: Archbishop of, I-126b; X-194b; cathedral, XII-48a, 436a; pilgrimages, I-367a; V-35a
 Canterbury bell, flower, VI-54b; II-168a; Index p. 66
 Canterbury Plains, New Zealand, III-312b
 Canterbury Tales, Chaucer, XII-57b, 131b
 Canticle of the Sun, hymn of St. Francis, V-169b
 cantilever bridge VIII-39b; IV-162b, 340a
 cantilever crane VIII-99b
 Canton, port, S. China, III-72b, 243a; *map* III-87
 Cantons, Swiss, I-462a; federal government of, X-151a
 Canute, king of English, Danes, and Norwegians (1016-35), IV-476b; III-487a
 canvas work XI-321a
 canyon, valley, III-461a
 Canyon, Grand, Colorado, U.S.A., III-100b
 Cao, Diago, 15th-cent. Portuguese navigator, III-106b
 Capability Brown (Lancelot Brown 1716-83), English landscape gardener, V-58a
 capacitance (storing power), of electric condenser, VIII-93a; measurement of, VIII-273b
 Cape Breton I., Atlantic Ocean, *map* III-318
 Cape Colony, S. Africa, I-442a; III-412b
 cape gooseberry VI-127a
 cape jumping hare (spring haas) II-354b
 Cape of Good Hope, S. Africa, V-117a
 Cape Province, S. Africa, X-422b; *see also* Cape Colony
 capercaillie, grouse, bird, II-187a, 186b
 Capernaum, town of Galilee, New Testament, Index p. 125a
 'Cape rubies' III-180b
 Cape St. Vincent, Battle of (1797), V-244b, 332a
 Cape Town, port, S. Africa, III-73a; *map* III-5
 Cape Verde Is., N. Atlantic Ocean, V-117b
 capillaries, blood-vessels, XI-26a, 28b, 381b
 Capital VII-79b; building societies, VII-69a; co-operative societies, VII-128a; interest, VII-247b; issuing houses, VII-252b; limited companies, VII-266b; loans, VII-271b, 156b
 Capitalism X-69b
 Capital Punishment X-71a, 355a
 Capitol, ancient Rome, III-381b
 Capitol, Washington, D.C., U.S.A., III-472a
 capons, poultry, XI-364a

Cappelle, Jan van de (c. 1624-1679), Dutch painter, XII-236b
 Capri I., Italy, III-308b
 Caprichos, etchings by Goya, V-197b
 Capricorn, Tropic of, III-92a; *illus.* III-90
 Capricornus (Goat), constellation, III-108b
 cap rock III-325a
 caps XI-212a
 capsicum, plant, VI-423a
 capsid bug II-58b
 capsule, type of fruit, II-168a
 captain: aircraft, IV-13a; ship's, IV-407b
 Captain Singleton, Daniel Defoe, V-132a
 Capua, ancient city, Italy, I-409b
 capuchin monkey (sapajou) II-275a
 capybara, rodent, II-81a
 car, *see* motor-car
 Caracalla baths, Rome, IX-411b
 Caracas, Venezuela, S. America, III-463a; I-485a; *map* III-415
 caracul, lamb-skin, VII-200b
 carapace, shell of turtles and tortoises, II-439b
 carat, measurement: diamonds, VII-160b; gold, VII-22b, 208b
 Caravaggio, Michelangelo da (1573-1610), Italian painter, XII-67b
 caravan: camping, IX-109a; camel, IV-122a; routes, IV-457a
 caravanserai, desert shelter, IV-202b
 caravel sailing ship IV-389b
 carbohydrates, food-stuffs, XI-335b, 336b, 184b; in animal nutrition, II-293b; plant nutrition, II-294b
 carbon, element, III-83b, 131b; in charcoal, VII-94a; graphite, VII-214a
 carbonado, diamond, VII-159a, 160a
 carbon-arc lamp VIII-120b
 Carbonari, Italian secret society, X-406b
 carbon bisulphide (CS₂) VI-250a
 carbon dioxide (CO₂): in air, III-34a; in blood, XI-26b; by-product from industrial alcohol, VII-236a; in photosynthesis, II-318a; in respiration, XI-381a; effect on rocks, III-126a
 carboniferous period, of earth's history, III-96b; *table* III-139
 Carbon in Living Things II-72b
 carbon monoxide (CO) VIII-86a
 carbon-tetrachloride (CCl₄), in fire-fighting, X-157a
 carborundum, mineral, VII-414b
 carbuncle, garnet, III-180b
 carburettor, of petrol engine, VIII-230b
 carcass, explosive projectile, X-294b
 Carcassonne, southern France, III-174b; *illus.* XI-456
 cardboard VII-329b
 carder bees II-60a
 Card Games IX-112a
 Cardiff, Glamorgan, III-471a
 cardinal, in Roman Catholic Church, I-407a
 cardinal finch, bird, II-144a
 cardinal fish II-372a
 carding: cotton, VII-140a; *illus.* VII-138; wool, VII-487b

cardoon, artichoke, VI-35a, 114b
 card-reading, fortune-telling, IX-241b
 cards, *see* playing cards; card games
 card-sharper IX-150b
 Carducci, Giosuè (1835-1907), Italian poet, XII-220b
 Cardwell, Edward, Viscount (1813-86), British statesman, X-40b
 Carême, Antonin (1784-1833), French cook, XI-82a, 313a
 Carew, Thomas (1598-1639), English poet, XII-257b; IX-316a
 Carey, William (1761-1834), English Baptist minister, I-64b
 cargo ship IV-405a, 321a; VIII-309b
 Caribbean sea III-484a
 caribou, American reindeer, I-10a
 Caribou, Indians of N. America, I-10a
 Caribs, Indians of the Caribbean islands and S. America, I-488a
 Caricature XII-58b
 carillon, bells, IX-58b
 carillon, French folk dance, IX-235b
 Carinthia, province, Austria, III-42b
 Carissimi, Giacomo (1605-1674), Italian composer, XII-57a
 Carlton club, London, IX-142b
 Carlyle, Thomas (1795-1881), historian and essayist, V-70a; IV-244b; *Life of Carlyle*, XII-44b, V-71a
 Carmel, Mt., Palestine, Index p. 125a
 Carmelite religious order V-443a; I-187a; *illus.* I-188
Carmen, opera by Bizet, V-45b; IX-349a
 Carnations and Pinks VI-71a
 Carnegie, Andrew (1835-1919), Scottish millionaire industrialist, V-71b
 Carnegie Trust X-390b
 carnelian (cornelian), mineral, III-6a
 Carnivals IX-114b
 Carnivora (flesh-eating mammals) II-73b
 carnivorous plants, *see* insectivorous plants
 carnivorous slug II-394a
 Carnot, Nicolas (1796-1832), French physicist, VIII-196b
 Caroline of Brunswick, Queen of England 1795-1821, V-188a
 Carolingian art XII-254b
 Carolingian empire, *map* Index p. 53
 Carolingian script IV-181b
 Carols XII-60b
 carol singers IX-478a
 carotene, food substance, XI-476a, 301a
 Carp, fish, II-73b; IX-17a
 Carpaccio (active 1486-1525), Italian painter, *illus.* XI-411
 Carpathians, *mts.*, Central Europe, III-74a
 Carpentry and Joinery VII-80b, 475b
 carpet bedding, of plants, VI-47a
 Carpet Making VII-84a; mohair, VII-220a
 Carpets and Floor Coverings XI-42a
 carpet-shark II-385a
 carpet sweeper XI-66a
 carpincho, S. American rodent, II-81a
 Carracci, Annibale (1560-1609), Lodovico (1555-1619), Italian painters, XII-218b, 58b
 carrack, sailing ship, IV-389b

carrageen moss XI-266a
 Carrara marble VII-277b
 Carriages IV-86a, 430b; *illus.* IV-194; 'cabs', IV-443a; carriage horses, IV-195a
 Carriera, Rosalba (1675-1757), Italian painter, XII-260b
 'carrier' animals VI-18b
 carrier-pigeons IV-314a
 carrion crow II-108a; VI-475b
 Carroll, Lewis (Charles Lutwidge Dodgson, 1832-98), author and mathematician, V-72b; XII-70a, 331a; nonsense poetry, XII-93a
 carronade, naval gun, X-294a
 carrot fly VI-167b, 73a
 Carrots VI-72b; II-411b; Index p. 65
 Cart and Wagon IV-88b; farm vehicles, VI-143a
 Carte, Richard D'Oyly (1844-1901), theatre manager, V-432b
 cartel, trade association, VII-125b
 Carteret, Philip (d. 1796), British navigator, IV-144a
 Cartesian system, philosophy, V-135a
 Carthage, N. Africa, III-446a; *map* I-23; government, I-365a; Punic wars, V-208a; trading, VII-443b; capture by Vandals, I-483a
 cart-horse, *see* farm horses; *see also* cart and wagon
 Cartier, Jacques (1491-1557), French explorer, V-73a
 cartilage, elastic tissue of body, XI-30a
 cartomancy, fortune-telling, IX-241b
 cartoon, political, XII-59a; IV-337
 cartoon (preliminary design for pictures) XII-111a
 cartoon films IX-217a
 cartridge, explosive, VIII-28b
 Cartwright, Edmund (1743-1823), British inventor, VII-485a
 Caruso, Enrico (1873-1921), Italian tenor, V-73b
 carved-built boats VIII-29a; IV-389a
 carving: ivory, XII-221a; stone, XII-349b; wood, XII-476a; medieval churches, XII-385b, 177a, 80b; prehistoric, XII-356b; primitive, XII-362a; stone crosses, XII-96b
 Caryophyllaceae, campion flower family, Index p. 64
 caryopsis, fruit of grasses and cereals, II-167b
 Casa, Giovanni della (1503-56), Italian writer on etiquette, XI-148a
 Casablanca, *port*, Morocco, N. Africa, III-303a, b; *map* III-5
 Cascade *mts.*, W. coast of U.S.A., III-451a
 Case-bearer Moths II-75a
 casein, plastic material, VII-343a; process in making rayon, VII-373a
 case law X-232b
 Casement, Sir Roger (1864-1916), Irish politician, X-462b
 case-shot, explosive projectile, X-294b
 cashew nuts VI-295a
 cashmere hair VII-220a
 cash register VII-1a
 Casinos IX-115
 Cask-making VII-86a
 Caspian Sea III-74b; *map* III-17

Cassandra, character of Greek legend, Index p. 138b
 cassava (tapioca) VI-467a
 casseroling XI-422a, 36b
 cassique, tropical bird, II-408a
 cassiterite, mineral, III-285b
 cassowary, flightless bird, II-302b
 castanets, percussion instrument, IX-366b; *illus.* IX-364
 Caste (division of Hindu Society) I-95b
 Castiglione, Count Baldesar (1478-1529), Italian writer, XII-220a; XI-148a
 Castillon, Battle of (1453), X-201b
 Casting, metal, VIII-63a
 cast iron VIII-233b, 63a, 6b, 8a; as building material, VIII-419a
 Castle XI-44b; X-164b; Conway castle, *illus.* I-486
 castle, of sailing ship, IV-388a
 Castlebay, *port*, Hebrides *Is.*, W. Scotland, III-215b
 Castletown, Isle of Man, III-239b
 cast-net, fishing, VI-161a
 Castor and Pollux, characters of Greek mythol., Index p. 138b
 Castor and Pollux, stars, *map* III-109
 castor-oil plant VI-301a; II-379a; extraction, VII-322a; Index p. 70
 Castriot, George (Scanderbeg) (1403-68), Albanian leader, I-5a
 casual ward X-495b
 cat, *see* cats
 catacomb, cemetery, XII-118a
 Cataloguing and Indexing IV-90a
 Catalonians, peoples of N.E. Spain, I-449a
 catalysis, in sulphuric acid manufacture, VII-4b
 catamaran, raft, IV-331b
 cataphoresis, plating, VIII-142a
 catapult, *see* siege engines
 catapult take-off, of aircraft, IV-13a, X-292a
 cataract, eye disease, XI-152b
 cat bird II-270a
 catch crops (rapidly maturing crops) VI-389b
 catcher, in riveting, VIII-371b
 catches, songs, XII-427a
 catchment area, of river, X-113a
 Catchment Boards, river control, VI-119b
 Catering Industry VII-87b; training schools and courses, XI-108a
 Caterpillar, insect, II-75b; as pest, VI-61b
 Caterpillar Club, for parachute escapes, IV-311b
 caterpillar track vehicles IV-455b; *illus.* VIII-118; *see also* track mechanism
 caterwauling, mating-call, IX-119b
 Catfish II-77b, 48b; electric, II-134a
 Cathay (China) IV-143a
 cathedral chapter, of cathedral clergy, I-127a; chapter house, XII-64a
 cathedrals: Chartres, XII-64b; St. Paul's XII-400a; St. Peter's, Rome, XII-401b; St. Sophia's, Constantinople, XII-402a; *see also* Church architecture, English; Gothic art; Romanesque art

Catherine, St., Index p. 134a
 Catherine of Aragon (1485–1536), 1st wife of Henry VIII, V-218b–219b
 Catherine the Great (1729–96), Empress of Russia, V-74a
 cathode, negative pole, electricity, VIII-446a; of photocell, VIII-324a
 Cathode Ray Tube VIII-66b
 Catholic Church, *see* Roman Catholic Church
 Catholic Church (universal Christian Church) I-119a
 Catholic emancipation X-319b; V-342a; bill (1829), V-355a
 catmint, plant, Index p. 68
 Cats II-78a
 Cats, Domestic, IX-117a; sight, IX-120a; II-382b
 cat's cradle, puzzle, IX-396b
 cat's ear, sea-shore plant, II-376a
 cat's eye, tropical fruit, VI-465a
 cat-shark (dog-fish) II-385a
 cat snake II-397a
 catsup (ketchup), sauce, XI-75b
 Catterick, Yorks., army training centre, X-42b
 Cattle VI-74a; dual-purpose, VI-76a; hides, VII-226a; improvement, VI-8a; sale, VI-282b; 'store' trade, VI-82a, 133b; tropical, VI-22a, 75a
 cattle, beef, VI-76a, 78a, 84a; care of, VI-82a; meat trade, VII-283b
 Cattle, Care of, VI-79a, 138b
 cattle, dairy, VI-76a, 79a; care of, VI-79a
 Cattle, Wild, II-79b
 Cattle Breeds VI-76a, 8a; *illus.* VI, opp. p. 80
 cattle cake VI-169b, 42b
 cattle plague (rinderpest) VI-20b
 Cattle Ranches VI-82a
 cattle trains IV-461b
 Catullus, Gaius Valerius (c. 84–c. 54 B.C.), Roman poet, XII-248b; V-343a
 Cauca, river, Colombia, S. America, III-99a; *map* III-415
 Caucasus mts. III-75b; folk-dances, IX-234b; Ossetic language, IV-312b; passes, IV-280a
 Cauldric Association, Irish society, V-342b
 cauliflower VI-67a, 65a
 caulking, of boats, VIII-30b
 Causses, limestone area, S.E. France, III-174b
 caustic soda VII-14b
 cavaliers, of Civil Wars, X-97a
 cavalla, sea-perch, II-372b
 Cavalry X-73b; armour, X-39a; uniform, X-472a
 Cave of Dogs, Naples, Italy, III-181a
 cave-drawings, *see* cave-painting
 Cave Man I-96b; *see also* primitive dwellings
 Cavendish, George (1500–61), biographer, XII-43b
 Cavendish, Henry (1731–1810), British scientist, VII-6a
 Cavendish, Sir Thomas (1560–92), explorer, V-128b
 Cavendish Laboratory, Cambridge, X-68a

cave painting XII-356b, 6b; *illus.* XII-358; of Bushmen, XII-6b
 Caves III-76b
 caviare XI-225b; III-75b
 cavitation, on propeller blade, VIII-340a
 cavity walls VIII-38a
 Cavour, Count Camillo Benso de (1810–61), Italian statesman, V-74b
 Cavy, rodent, II-81a; guinea-pig, VI-219b
 Cawnpore, N. India, III-180a; *map* III-229
 Caxton, William (c. 1422–91), first English printer, V-76a
 Cayenne, port, French Guiana, S. America, III-208a; *map* III-415
 Cecchetti, Enrico (1850–1927), Italian ballet artist, IX-48a
 Cecil, William, Baron Burghley (1520–98), Lord High Treasurer, V-76b
 Cecil Family V-76b
 Cecilia, St., Index p. 134a
 cedar tree VI-458b
 cedars of Lebanon VI-458b
 ceilidhe, social gathering, Ireland, I-256a
 ceilings XI-175a
 celandine, lesser, II-159a, 284b, 356b; *illus.* II-355; Index p. 64
 celanese, textile, VII-373a
 Celebes I., East Indies, III-145b; *map* III-144
 celeriac, celery, VI-85a, 84a
 Celery VI-84a; Index p. 65
 celery fly VI-167a
 celery leaf spot, fungus disease, VI-85a
 celesta, percussion instrument, IX-366a
 Cellini, Benvenuto (1500–71), Italian goldsmith, V-78a
 'cello, string instrument, IX-451a, 352a
 cellophane VII-343a
 cells: in animal physiology, II-282a, 203b; in human physiology, XI-7b; in blood, XI-26a; regulation of, XI-138a
 cells, electric, of battery, VIII-19b; secondary cells, VIII-20b
 cellulose: in plastics industry, VII-343a; in rayon industry, VII-372b
 cellulose-acetate, chemical, VII-372b
 Celsius, Anders (1701–44), Swedish physicist, VIII-442a
 Celsius (centigrade) scale, temperature, VIII-442a
 Celtic art XII-358b, 46b
 Celtic cattle VI-74b
 Celtic Civilization I-97b
 Celtic languages IV-167a, 211a, 483a
 Celtic Revival V-495b; XII-110b
 Celts; I-97b; of Britain, I-77a, 257b, 431a, 486a
 C.E.M.A. (original Arts Council of Great Britain) IX-22a
 Cement VII-90b; in concrete making, VIII-88b; cement works, *illus.* VIII, opp. p. 176
 cemeteries, ancient, I-66a
 cenotaph, Whitehall, XII-276b
 cenozoic age, table III-139
 Censorship X-75a; of press, X-75b; IV-302b
 census, population, X-483a

Centaur, constellation, III-110; *illus.* III-108, 110
 Centaurs, monsters, Greek mythol., I-335a; Index p.
 centigrade (Celsius) scale, temperature, VIII-442a; Index p. 122
 centimetre IV-264b
 centipede II-288a; VI-326a
 Central Africa III-4b; Livingstone's expeditions, V-278b; Stanley's expeditions, V-425b
 Central America III-78a; Indians, I-6a
 Central Americans I-100a
 Central Criminal Court X-303a
 central heating XI-219b, 218a; VIII-197b; Roman system, VIII-198b
 Central Valley Project (California) VIII-68a
 centrifugal casting, metal, VIII-65b
 centrifugal clutch VIII-83a
 centrifugal force III-305a
 Centurion, H.M.S. (1740–4 world voyage), IV-91b
 'Century', New York–Chicago train, IV-471a
 cephalopoda, class of molluscs, II-271b
 Cephas, *see* Peter
 Cerberus, monster, Greek mythol., I-335b
 cereal crops VI-31a; barley, VI-40b; buckwheat, VI-58b; cultivation of, VI-106b; distribution of, VI-132b; maize, VI-275a; millet, VI-288b; oats, VI-297a; rice, VI-377a; rye, VI-394b; wheat, VI-486b
 cereals, family, Index p. 71
 Cereals and Pulses XI-48a; cooking of cereals, XI-29b
 cerebellum, part of brain, XI-35a
 Cerebrum, forebrain, XI-35a
 Ceres, planet, III-343a
 Ceres, Roman goddess, I-202a; Index p. 138b; *see also* Demeter
 Cerne Abbas, Dorset, prehistoric figure, XII-46b
 Certificate of Origin, overseas trade, VII-324b
 Cervantes, Miguel de (1547–1616), Spanish writer, V-78b; XII-404b
 Cesarewitch horse-race IX-292a
 cess-pool, drainage, XI-395a
 Ceylon, I., S. India, III-79b; *map* III-229; tea trade, VII-428b
 Ceylon, Government of, X-76b
 Ceylonese I-101a; totemism, I-474b; Vedda peoples, I-392b
 Ceylon peridot, mineral, III-445a
 Cézanne, Paul (1839–1906), French painter, V-80a; XII-354a, 239a; *illus.* XII-opp. p. 353
 chaburoth, Jewish gatherings, I-278b
 chaco plains, S. America, III-18b, 55b, 334a
 Chad, lake, French equatorial Africa, III-254a; *map* III-5
 Chadwick, Sir Edwin (1800–90), social reformer, X-348b, 135b
 Chadwick, Sir James (1891–), English scientist, V-399b
 Chaeronea, Battle of (338 B.C.), V-133a
 Chafer, beetle, II-81b; grub, VI-51b
 chaff, hay and corn, VI-42b
 chaffinch, bird, II-144b

Chagos archipelago, *Is.*, Indian Ocean, III-231a; *map* II-322
 chain drive, power transmission, VIII-24b
 Chaîne Annamitique, *mts.*, Indo-China, III-232b
 chain mail, *see* mail armour
 chain-making VIII-483a
 chain reaction, nuclear fission, VIII-315b
 chain stores VII-304a
 chair-making VII-197a
 Chairs XI-49a
 Chaka (Shaka), Zulu chief of 19th cent., I-495b
 chalcedony, mineral, III-6a
 Chalcid Fly II-82b; VI-27b
 Chaldeans I-57a
 Chaliapin, Feodor Ivanovich (1873-1938), Russian singer, V-80b
 chalk III-261a, 326b; chalk lands, VI-268b; cement-making, VII-91a; French, III-291a; lime-making, VI-268b
 chalk hill blue, butterfly, II-51b
 Chalk Mining VII-92b
 chalumeau, wind instrument, IX-340b
 chamberlain (Scottish local government official), X-252a
 Chamberlain, Austen (1863-1937), British statesman, V-81b
 Chamberlain, Joseph (1836-1914), British statesman, V-81a
 Chamberlain, Neville (1869-1940), British statesman, V-81b
 Chamber Music XII-61b
 Chambers, Sir William (1726-96), English architect, XII-77a, 369a
 Chambers of Commerce VII-93b
 Chambers's *Encyclopaedia* XII-130b
 Chameleón, lizard, II-82b
 Chamois, mammal, II-83a
 champagne, wine, VII-471a, 470b
 champignon, mushroom, II-172b
Champion, The, periodical, V-166a
 Champion Chase, horse-racing event, IX-292a
 Champion Hurdle Cup, horse-racing event, IX-292a
 Champlain, Samuel de (1567-1635), French colonizer of Canada, I-92b
 champlévé, enamel, VII-176b
 Champollion, Jean F. (1790-1832), French Egyptologist, IV-187b
 'Champs Elysées, The', painting, Watteau, *illus.* V-474
 Chancellor, Richard (d. 1556), British explorer, IV-143b
 Chancellor of the Duchy of Lancaster X-267b
 Chancellor of the Exchequer X-284b
 Chancery Division, High Court, X-184a; origins, X-233a
 Chan Chan, ancient city of Peru, I-359b
 chandeliers XI-285b, 260b
 Chandragupta, 4th-cent. B.C. Indian emperor, I-240b
 chank-shell, oyster, II-312b
 Channel Islands III-81a
 Channel Swimming IX-120b
 channelled-wrack, seaweed, II-374a
 Chanson de Roland, medieval epic, XII-62b, 383a, 134b

chant, in Christian Church, XII-344b; Anglican, XII-398a; melismatic, XII-345b
 chantarelle, fungus, II-170b
 chant royale, verse-form, XII-471b
 Chantry, chapels, XII-63b; schools, X-138b
 Chanute, Octave, 19th-cent. glider pilot, IX-256b
 Chapel Royal V-374a
 Chaplin, Charlie (1889-), film comedian, IX-139b; *illus.* IX-130
 Chapman, George (c. 1559-c. 1634), English writer, XII-91b
 chapman, pedlar, VII-334b
 chapter, cathedral clergy, I-127a
 Chapter House, cathedral, XII-64a
 char, fish, II-362a
 Characin, fish, II-83b
 Charades IX-121a
 Charaka, Hindu physician (c. 1000 B.C.), XI-332b
 Charcoal VII-94a; in iron and steel industry, VIII-235b
 chard, beet, VI-424b
 Chardin, Jean Baptiste (1699-1779), French painter, XII-439a, 334a
 Chardonnet, Count Hilaire de, 19th-cent. French scientist, VII-372b
 Chares, Greek sculptor (3rd cent. B.C.), XII-475b
 charge, heraldic, IV-184b
 chargé d'affaires X-163a
 chariot IV-86b, 41b; *illus.* IV-485b
 Chariot Racing IX-121b
Charivari, Le, periodical, XII-59a
 Charlemagne (742-814), King of the Franks, V-81b; church building, XII-254b; court, XII-169a; V-82b; empire, *map* Index p. 53
 Charleroi, Belgium, III-50b
 Charles I (1600-49), King of England, V-83a; cipher letter, *illus.* IV-107; Civil War, X-96b; postal system, IV-327a; ship money, X-409b
 Charles II (1630-85), King of England, V-84a; bank loans, VII-29b; Civil War, X-97b; East India Company, VII-172a; Greenwich Observatory, IV-289a; Nonconformists, I-129b
 Charles IV (1316-78), King of Bohemia and Holy Roman Emperor, III-350b
 Charles V (1500-58), Hapsburg Emperor, V-85a; empire, *map* Index p. 54
 Charles VIII, King of France (1470-98), V-401b
 Charles X (Charles Gustavus (1622-60), King of Sweden, V-90b
 Charles, Jacques Alexandre César (1746-1823), French scientist, III-354a
 Charles, Thomas (1755-1814), Welsh preacher, X-491b
 Charles's law, physics, VIII-176a
 charleston, dance, IX-51b
 Charlie, Bonnie Prince, V-430b
 charlock, weed, VI-481a
 charms I-450a
 Charnock, Job (d. 1693), British merchant, VII-172a
 Charon, ferryman, Greek mythol., I-200b; Index p. 138b

Charpentier, Gustave (1860-), French composer, XII-312a
 chartered accountant VII-24b
 chartered aircraft IV-97b
 Chartered Companies VII-94b
 charters, of towns and cities, X-247b
 Chartism X-77a
 Chartres Cathedral XII-64b
 Charts, navigation, IX-92a; hydrography, VIII-221b
 Charybdis, whirlpool, Greek mythol., I-335b; III-402b; Index p. 142b
 chasing, metal, VII-209a
chassidim, Jewish scholars, I-280a
 chat, thrush, II-427a, 425b
 Château de Maisons, France, XII-161a; *illus.* XII-opp. p. 160
 châteaux, French, XII-176b
 Chatham, William Pitt, Earl of (1708-78), English statesman, V-86a
 Chatham, Kent, X-382a
 Chatsworth, Derbyshire, *illus.* VI-197
 Chatterer, bird, II-84a
 Chaucer, Geoffrey (c. 1340-1400), English poet, V-87a; allegories, XII-8a; *Canterbury Tales*, XII-57b, 131b; V-88b; verse-form, XII-470b, 249a
 checkmate, in chess, IX-124a
 check rails, of railway track, VIII-363b
 Cheddar cheese VII-155b
 Cheddar Gorge, Somerset, III-461b
 cheese-fly II-84b
 cheese-making VII-155b; XI-52a
 cheese-mite II-269b
 Cheeses XI-52a
 Cheese-skipper, insect larva, II-84b
 cheetah, wild cat, II-79b; IX-295a; *illus.* IX-370
 chefs XI-82a, 109b
 Chekhov, Anton (1860-1904), Russian writer, V-88b; XII-110a, 418a
 chelonians, turtle and tortoise family, II-439b
 Chelsea Flower Show VI-14a, 378b
 Chelsea Pensioner, *illus.* X-317
 Chelsea porcelain XII-318b, 356a
 Cheltenham College X-352a
 Cheltenham Festival, of music, IX-341a
 Cheltenham Gold Cup, horse-racing event, IX-292a
 Cheltenham Ladies' College X-353a
 chelys, lyre, IX-339a
 chemical energy VIII-142b
 Chemical Engineering VIII-69a
 chemical industry, *see* chemistry, industrial
 chemical plants, *see* chemical engineering
 chemical weed-killers VI-481a
 chemin de fer, card game, IX-112a
 chemist, shop, VII-286a
 Chemistry III-83a
 Chemistry, History of, VII-97b; drugs, XI-124b
 Chemistry, Industrial, VII-100b; acids, VII-3b; alkalis, VII-12b; ammonia, VII-16b; artificial fertilizers, VI-35b; automatic controls, VIII-17b; industrial alcohol, VII-235a
 chemotherapy XI-306a
 cheng, ancient musical instrument, IX-339a

chenopodiaceae, beet plant family, Index p. 70
 Cheops (Khufu, c. 2700 B.C.), Egyptian pharaoh, I-156b; IV-365b
 cheque VII-28a, 333a
 Chequers, Bucks., X-266a
 Chéret, Jules (1836-81), French painter and lithographer, XII-352b
 Cherries VI-85a, 33b; II-169a
 cherry brandy XI-495b
Cherry Orchard, The, Chekhov, V-89a
 cherubim I-25a
 Cheshire, salt deposits, VII-382b
 Cheshunt Compound, for soil sterilization, VI-355b
 Chesil Beach, Dorset, III-199a
 Chess, game, IX-123a
 Chester, Cheshire, I-486b
 Chesterton, Gilbert Keith (1874-1936), detective stories, XII-102b
 chestnut trees VI-456a; fruit, II-167a; wood, VII-223b; VI-247a; *illus.* VII-225
 chest-of-drawers XI-54a
 Chests and Cupboards XI-53b
 Chetniks, Russian guerrilla forces, X-178b
 Cheviot hills, England/Scotland, III-396a
 Chevreul, Michel-Eugène (1786-1889), French chemist, XI-286b
 Chevrotaïn (mouse deer) II-84b
 chewing gum III-287b
 chewing the cud II-358a
 Cheyenne, tribe, of N. American prairies, I-11a
 Chiang Kai-Shek (1887-), Chinese general and statesman, I-110a
 Chiaroscuro, style of painting, XII-67a
 Chibchas, American-Indian tribe, I-8a
 Chicago, U.S.A., III-84b; *map* III-451; skyscrapers, XII-422b
 Chicago Fair (1893) XII-11b
 Chicago University X-24b
 Chichester, Sussex, *illus.* XI-453; earth-works, I-151a
 chicken pox, disease, XI-252a
 chickens VI-356b; hatching, VI-360a
 chickweed II-346b; Index p. 64
 chicle gum III-287b
 chicory VI-397a, 114b; family, Index p. 71
 chigoe (jigger), flea, II-153b
 Chi'ing (Manchu) dynasty, China, I-108b, 110a; III-275a; *chart* I-107; art of, XII-73b
 chilblains XI-407b
Childe Harold's Pilgrimage, Lord Byron, V-66b
 Child Guidance Clinics XI-56b
 child labour X-80b; domestic system, VII-166a
 Children, Upbringing of, XI-61a
 Children Act (1948) X-81b
 Children's Books XII-68a
 Children's Clothes XI-57b
 Children's crusade I-132b
 children's films IX-218b
 Children's Homes X-77b
 Children's Hour, B.B.C., IX-127a
 children's officer X-250a
 Child Welfare X-79a; clinics, XI-164b; juvenile courts, X-225b

Chile III-85a; *map* III-415
 Chilean glory flower VI-92b
 Chileans, I-104a
 chillies, spice, VI-423a
 Chiltern hills, S. England, III-157a, 170b
 chimaera (rabbit-fish) II-386a
 Chimaera, monster, Greek mythol., I-335b
 Chimboraço, *mt.*, Andes range, S. America, IX-333a
 Chimneys XI-63a; sweeping, XI-247b; 'climbing boys', X-81a
 chimpanzee, ape, II-22a; IX-368a
 Chimu, Early (Mochica), Peruvian pottery, I-358b
 China III-86a; ancient currencies, VII-357a; fishing, VI-158b; Great Wall, III-202b; invention of paper, VII-326b; population, I-372b; printing, IV-333b; tea-trade, VII-428a; tea-clippers, IV-104a, 118a
 china, porcelain, VII-348a; jugs and vessels, XI-271a; pottery and porcelain figures, XII-355a; table dishes, XI-434b
 China Clay VII-102b
 China-mark Moths II-85a
 'China's sorrow' I-105a; *see also* Yellow River
 Chinchilla, rodent, II-85b; fur, VI-187b, 190b
Chindwara, training ship, VII-19a
 Chinese architecture XII-71a
 Chinese Art XII-70b; carpets, VII-85a; influence on Europe (Chinoiserie), XII-76b; pottery and porcelain, XII-72a, 73b; VII-348a, 352b; *illus.* XII, opp. p. 224; silk embroidery, XI-135b
 Chinese cabbage VI-65a
 Chinese Civilization I-105a; influence on Europe, XII-77a
 Chinese Classics I-420b; V-101a; IV-96b
 Chinese drama XII-76a
 Chinese encyclopaedias I-112b; XII-129a
 Chinese fire, fireworks, IX-227a
 Chinese gardens VI-194a
 Chinese Language IV-94b; writing, XII-71a
 Chinese Literature XII-74b
 Chinese man (Peking man), fossil remains, I-182b
 Chinese music XII-318a
 Chinese Peoples I-109a; death ceremonies, I-139b; shoes and foot bandaging, XI-33b
 Chinese philosophy I-112b; sacred books, I-420b
 Chinese phoenix (love pheasant) I-366a
 Chinese Religion I-112b
 Chinese sacred books I-420b
 Chinese white, colour pigment, VII-325a
 Chinghai, *province*, N.W. China, III-86b
 Chin hills, NW. Burma, III-63a
 Chinoiserie XII-76b
 chinook, wind, of N. America, III-169a
 chipmunk, rodent, II-260b
 Chippendale, Thomas (1718-79), British cabinetmaker, VII-75b; *The Director*, pattern book, XI-195a

Chirico, Giorgio de (b. 1888), painter, XII-446a; *illus.* XII-445
 chiromancy, palmistry, IX-242b
 Chiron, Centaur, Greek, mythol., Index p. 138b
 chiropractice XI-345b
 chisel VIII-163b; *illus.* VII-82
 Chisholm Trail, Texas, U.S.A., IV-28b
 chiton, soft-bodied creature, II-271b
 chittarone, musical instrument, IX-311b
 chitterlings, offal, XI-339b
 Chivalry X-82a; knights, I-281a
 chives VI-305a
 chlorination, of water, VIII-480a
 chlorine gas III-38a; gas warfare, X-174a; gold refining, VII-213a; manufacture, VII-14a
 chloroform, anaesthetic, XI-4a
 chlorophyll II-318a, 155b
 chocolate VII-118a; VI-68a
 chocolate-tip moth II-330b
 Choirs IX-128a
 choke, of petrol engine, VIII-230b
 choke coils, electric appliances, VIII-227a, 9b
 choking XI-100b
 cholera, disease, XI-144a
 chop-house VII-89a
 Chopin, Frédéric (1810-49), Polish composer, V-89b; XII-98b
 chop suey, Chinese dish, XI-383b
 chorale, hymn, XII-197a
 chord, of circle, VIII-188a
 chords, in music, XII-189b
 choreography (designing of dances) IX-46a, 175b
 chorus, of Greek drama, IX-173b
 chorus, of opera, IX-350b
 Chou dynasty, of China, I-107a
 chough, crow, II-109a
 chowder, fish soup, XI-418a
 Chrétien of Troyes, 12th-cent. French poet, I-37a
 Christ, *see* Jesus of Nazareth
 Christ, meaning of word, I-279a
Christabel, Coleridge, V-98b
 christening, *see* baptism
 Christian art, early, XII-118a; illuminated manuscripts, XII-199b; mosaics, XII-280b, 121a; *see also* Byzantine art
 Christian Church I-115b; Athanasian creed, V-22a; St. Augustine of Hippo, V-22b; canon law, X-69b; Gregory the Great, V-200b; St. Paul, V-352a; St. Peter, V-358b; Reformation, I-395a
 Christian churches and sects: Baptist, I-64a; British Israelite, I-75b; Calvinist, I-91a; Christian Science, I-121a; Church of England, I-124a; Congregationalist, I-129a; Coptic Church, I-130a; Lutheran, I-287a; Methodist, I-307b; Moravian, I-328a; Mormon, I-328b; Orthodox Eastern Church, I-348a; Presbyterian, I-91a; Quaker, I-388a; Roman Catholic Church, I-407a; Waldensian, I-486a; *table* I-118
 Christian festivals I-177a, 122b
 Christianity I-119a; angels, I-25b; Bible, I-68b, 421b; XII-459a; miracles, I-319b; missionaries, I-321b;

Christianity (*cont.*)

monasticism, I-324b, 38b; mysticism, I-331b; priests, I-385a; sacraments, I-417a; saints, I-427a; satan, I-430b
 christian names IV-285a
 Christian sacred books I-421b, 68b
 Christian Science I-121a
 Christian Year, calendar of Church, I-122b
 Christie, Frank, bush-ranger, X-65a
 Christie's, auctioneers, VII-23b
 Christina of Sweden (1626-89), Queen of Sweden, V-90a
 Christmas I-122b; XI-154b; carols, XII-60b; customs, IX-473b, 284b; Father Christmas, I-174b; Christmas tree, IX-286b
 Christmas I., Indian Ocean, III-231b
 Christmas rose VI-492b; *illus.* VI-491
 Christmas tree, fir tree, VI-460b
 Christophe, Henri (1767-1820), West Indian ruler, I-489a
 Christopher, St. (d. c. 250), I-428b
 Christos (Consecrated One), Jewish religion, I-274b, 279a
 Christ's College, Cambridge, X-67b
 Christ's Hospital, Horsham, X-352b
 chromatic notes, music, XII-191a; scales, XII-409a
 chromatin, in cell-structure of animals, II-204a
 chromium extraction VIII-283a
 chromium-plating VIII-141b, 423a
 chromosomes, of body cells, II-204a
 chromosphere, of sun, III-426a
 chronicles, medieval, XII-192b
Chronicles, Books of, Jewish sacred writings, I-421a
 Chronometer IV-96b, 289b
 chrysalis, of butterfly, II-64a, 163a
 Chrysanthemum VI-86a, 114a; II-190a; diseases, VI-125b, 27a; family, Index p. 71
 chrysolite, mineral, III-290b
 Chrysostom, St. (c. 345-407), XII-413a
 chub, fish, II-74a; IX-16b, 17a
 chuck, of lathe, VIII-248a
 Chu Hsi, Chinese teacher, I-115a
 Chukchee, tribe, of N.E. Siberia, U.S.S.R., I-439b
 Chungking, China, III-308a; *map* III-87
 Church, Christian, *see* Christian Church
 church architecture: altar, XII-8b; arch, XII-20a; chantry chapels, XII-63b; font, XII-157b; misericord, XII-262a; rood screens, XII-390b; vault, XII-462a; *see also* cathedrals; Baroque art; early Christian art; Gothic art; Romanesque art
 Church Architecture, English, XII-78b
 church architecture, French, XII-160b; German, XII-169a, 172a
 Church Assembly, of Church of England, I-126b; V-441b
 church-bells IV-415a; bell-ringing, IX-58a
 Church courts, of law, X-69b
 Church embroidery XI-133a
 Churchill, John, Duke of Marlborough (1650-1722), British soldier, V-294b

Churchill, Sir Winston (born 1874), V-91a; Second World War, X-403b
 churching, birth ceremony, I-73a
 Church Lads' Brigade IX-140b
 Church Missionary Society I-125b
 church music XII-397a, 291b; English, XII-398a; *see also* cantata; oratorio; passion music
 Church of England I-124a; clergy, I-126a; in House of Lords, X-194b; parishes, X-310b; the Oxford Movement and Anglo-Catholicism, I-125b
 Church of England Children's Society X-80b
 Church of the Latter-day Saints I-328b
 churn drill VIII-345b
 chutney XI-75b
 Cicada, insect, II-86a; IX-369b
 Cicero, Marcus Tullius (106-43 B.C.), Roman orator, writer, and statesman, V-92b; rhetoric, XII-375, 376a
 Cichlid, fish, II-86b
 C.I.D. X-82b
Cid, *Le*, tragedy, Corneille, V-107b
Cid, *Poem of My*, Spanish epic, XII-433a
 Cid, The (Rodrigo Diaz, c. 1043-99) V-93a
 cider XI-74a
 Cider-making VII-104b
 cigar VII-436b; XI-412b
 cigarette VII-437a
 C.I.G.S. (Chief of Imperial General Staff) X-488b
 ciliates (ciliophora), single-celled animals, II-335b, 8b
 Cilicia, Roman province in eastern Asia Minor, Index p. 125a
 Cimmerians, in Greek legend, Index p. 138b
 Cimon (5th cent. B.C.), Greek statesman, V-357b
 cinch-bug II-59a
 Cinderella, fairy-tale, I-174a
 Cine-Cameras and Projectors VIII-72b, IX-132b
 cinema, *see* films
 Cinema, History of, IX-129a; VII-179a; film censorship, X-76b
 Cinematography, film-making, IX-132a; VIII-75a; high-speed photography, VIII-207a
 Cinematography, history, VIII-75b
cineraria maritima (dusty miller), plant, VI-47a
 Cingalese (Sinhalese), people of Ceylon, I-101a
 cinnabar, mineral, III-285b
 cinnabar moth II-430b
 cinnamon, spice, VI-423a
 cinquefoil, wild rose, II-357b
 Cinque Ports IV-323b
 Cinquevalli, juggler, IX-300a
 Cinto, *mt.*, N. Corsica, III-114a
 ciphers, codes, IV-106a
 Circassians, of Syria, I-465a
 Circe, enchantress, Greek legend, Index p. 138b
 circle VIII-187b
 circuit, electric, VIII-127a; interference, VIII-207a

circuit, judicial, X-48a, 238b
 circuit-breakers, of electric switchgear, VIII-431a
 Circumcision, Feast of the, in Christian year, I-123b
 circus, Roman chariot course, IX-122a
 circus clown IX-138b
 Circuses IX-134a
 Cirencester church, Glos., VII-482a
cire perdue, metal casting process, VIII-66a; XII-50b
 ciril bunting, bird, II-146b
 cirrocumulus, cloud-formation, III-94a, b
 cirrostratus, cloud-formation, III-94a, b, 363b
 cirrus, cloud-formation, III-94a, b
 Cistercian Order, monastic, I-325b; monasteries, XII-273a, 274a
 cistus forester, moth, II-61a
 citadel, acropolis, XII-3a; *see also* fortifications
 cithara, ancient musical instrument, IX-339a
 cities, *see* towns
 Citium (Kition), ancient city of Cyprus, I-134a
 Citizens' Advice Bureau X-85a
 Citizens' Clubs IX-144a
 citric acid VI-89b
 citron, fruit, VI-90a
 citronella, oil-yielding grass, VI-302b
 Citrus Fruits VI-88a; import, VII-215a
 Citta Vecchia (Notabile), Malta, III-273b
 City Companies VII-105a; election of Lord Mayor, X-86b; Tylers and Bricklayers, VII-57a
 City of Glasgow Bank VII-30b
 City of God, St. Augustine, V-24b
 City of London Corporation X-85b
 City State X-87a
 Civet, mammal, II-87b
 civic centres XII-370a
 Civil Aviation IV-97a; aircraft industry, VII-10b
 Civil Defence X-88b
 Civil Engineering VIII-76a; bridge building, VIII-39a; canal building, VIII-60b; Central Valley Project, California, VIII-68a
 civilization, early, I-20b; *chart* I-22
 Civil Law X-90b; Chancery Division, X-184b; county court, X-115a; procedure, X-467a; property law, X-344a
 civil law, Scottish, X-393a
 Civil List X-92b; pensions, X-319a
 Civil Service X-94a; in British colonies, X-102b; bureaucracy, X-64b
 Civil Service Commissioners X-109b
 Civil War, English, X-96b; army, X-39b
 Civil War, American (1861-5), X-19a; Alabama dispute, X-34a; blockade of Southern ports, X-55a
 Claims, Committee of, at coronation, X-113b
 Clam, mollusc, II-88a
 clamp, brick-making, VII-58b
 clans, Scottish, I-432a
 clapper bridges IV-60a
 clapper-rail, bird, II-340a
 Clare, St. (13th cent.), V-168b

Clare College, Cambridge, X-67b
 Clarendon, Edward Hyde, Earl of (1608-74), statesman and historian, XII-193a
 Clarendon Code (1661-5), religious laws, I-129b
 claret VII-471b
 clarinet, wood-wind instrument, IX-488b; in orchestra, IX-351b-352b
 Clarke, William, 19th-cent. cricketer, IX-161b
 classical architecture XII-84a, 86b, 316a; *illus.* XII, opp. p. 17; in England, XII-33b
 Classical Art XII-83a, 235b; in England, XII-32b
 classical literature, *see* Greek literature; Latin literature
 classical music XII-293a
 classical myths and legends, *see* Gods of Greece and Rome; Greek heroes; Greek myths; *see also* Index p. 137
 Classical Ships IV-98b; sea battles, X-398a
 Classification of Animals and Plants II-88b; botanical names, VI-55b; *table* of flower families, Index p. 63
 Claude, St., Index p. 134 b
 Claude (Claude Gellée, Lorraine 1600-82), French painter, V-93b; XII-235b; *illus.* XII, opp. p. 161
 Claudius (10 B.C.-A.D. 54), Roman Emperor, Index p. 125a
 Clausius, Rudolph, Julius Emmanuel (1822-88), German physicist and mathematician, VIII-196b
 clavichord, musical instrument, IX-302b, 304a
 clavicle (collar-bone) XI-31b
 clavier (keyboard of organ) IX-352b
 claviger (club-bearer), beetle, II-42a
 claws, animals, II-289a
 clay: brick-making, VII-57b; cement-making, VII-91a; china clay, VII-102b; pottery, VII-349a; puddled clay, VIII-103b
 Clay Pigeon Shooting IX-137b
 Clays and Shales III-89a; 'red clay' III-326b
 clay soil VI-420a
 clay tablets, writing, IV-495a, 117b
 Clayton, John Pierpoint (1657-1725), Irish clergyman, VII-202a
 Cleaning Equipment XI-65a
 Cleaning Materials XI-67a
 Clearing Houses, business, VII-108a, 29a; railway, VII-109b
 Clearwing Moths II-89b, 279a
 cleavers (sticky willies), plant, II-91a
 cleft, music, XII-287b
 cleg, horse fly, II-213b
 Cleitus (4th cent. B.C.), friend of Alexander the Great, V-10b
 clematis (traveller's joy), plant, II-379b; garden, VI-90a, 91a; Index p. 64
 Clemens, Samuel Langhorne (Mark Twain, 1835-1910), American writer, V-452b
 Cleon (5th cent. B.C.), Athenian general and demagogue, V-16b
 Cleopatra (69-30 B.C.), Queen of Egypt, V-373b, 294a
 Cleopatra's Needle, monument, London, I-470a; XII-275a

Clergy, Church of England, I-126a; canon law, X-69b
 clergy, *see also* priest; Roman Catholic Church
 cleriheiw, comic verse, XII-94a
 Clerk of the Parliaments X-195a
 click-beetle (skipjack) II-472b, 147a; pests, VI-51b
 'clicker', cutter in shoe-making, VII-53a
 'click' languages, African, IV-6b
 Clifton, *district*, Bristol, III-59b
 Clifton College, Bristol, X-352a
 Climate III-89b; influence on farming, VI-31a, 132b; influence of oceans on, III-324a
 Climate and Communications IV-100b
 climb-and-glide indicator, aircraft instrument, IV-5a
 climbing IX-329b; history of, IX-331a
 'climbing boy', chimney sweep, X-81a
 climbing perch, fish, II-233a
 Climbing Plants II-90b
 Climbing Plants, Garden, VI-90a; in greenhouses, VI-216b
 climbing roots II-356b
 clinics X-183a; child guidance, XI-56b
 clinker-built boats VIII-29a, 30b; IV-333a, 387a
 clinometer (Abney level), surveying instrument, VIII-429a
 Clio, Greek Muse of history, I-329a
 Clipper Ship IV-103a
 clipping (shearing) VI-410b
 Clive, Robert, Baron (1725-74), founder of British Empire in India, V-94a
 cloaks XI-70b
 Cloches, glass frames, VI-93a, 281a
 clocks, ancient, *see* timekeepers, ancient
 Clocks and Watches VIII-78b, 455b
 clock spring VIII-404b
 clogs XI-35a; clog dance, IX-234a
 cloisonné, enamel, VII-176b
 Cloister XII-87b
 Cloister and the Hearth, *The*, Charles Reade, V-158b
 'closed shop' principle, trade union, VII-454a
 Clothes XI-68b; history of, XI-86b; babies', XI-10a, 57b; children's, XI-57b
 Clothes, Care of, XI-69b; dry-cleaning, VII-166b
 Clothing Industry VII-109b; dress design, XI-116a; hosiery, VII-228a; shoe-making, VII-52b
 Clotho, Fate, Greek mythol., Index p. 139a
 Clothworkers' Company VII-107a
 cloudberry, moorland plant, II-200b
 cloud-burst III-437a, 362a
 cloud chamber, for detection of radioactivity, VIII-353a
 clouded buff, moth, II-430a
 Clouds III-93a; cloud control, for irrigation, VI-255b
 Clouds, *The*, Aristophanes, V-16b
 Clouet family, 16th-cent. French portraitists, XII-333a
 Clough, Arthur Hugh (1819-61), English poet, V-19a
 clout-shooting, archery, IX-21b
 clover, plant, II-292b, 285a; animal

food, VI-170a; in crop rotation, IV-308b; in grassland, VI-212a; hay crop, VI-262a; leys, VI-264b; family, Index p. 68
 'clover-leaf' road crossings IV-371b
 cloves, spice, VI-423b; *illus.* VI-424
 clown-fish (anemone-fish) II-372b
 Clowns IX-138a, 272b
 club-moss, plant, III-96b
 club-root, plant disease, VI-340a
 club rush, plant, Index p. 71
 clubs: athletic, IX-34a; cycling, IX-168a; film, IX-225b; football, IX-417a, 29b; mountaineering, IX-331a; pony, IX-386a; railway spotters, IX-399b; ski, IX-434a, 435a; Toc H, IX-466b; Y.M.C.A., IX-492a; Y.W.C.A., IX-493a
 Clubs, Boys' and Girls', IX-140a
 Clubs, History of, IX-142a
 Cluj, Roumania, III-74b
 Cluniac monks I-325b; monasteries, XII-273a
 Clutches VIII-82b; IV-270a
 Clwyd, Vale of, N. Wales, III-470b
 Clyde, river, Scotland, III-398b; *illus.* III-396
 Clyde Fortnight, sailing regatta, IX-424b
 Clydesdale horse VI-239b
 Clytemnestra, character in Greek mythol., I-208a
 Cnossus, *see* Knossos
 CO, *see* carbon monoxide
 coach: motor, IV-274a; railway, IV-343a; stations, IV-75a
 coaches, horse, IV-86b, 194b; stage-coach, IV-430b
 Coal III-96a; gas production, VII-202a; industrial uses, VII-102a; types of, VIII-172a
 coal-cutter VIII-302b; *illus.* VII-112
 coalfish, cod, II-93b; IX-18b
 coal-gas VIII-177a, 174a
 coalition ministries X-329a
 Coalitions, First, Second, and Third, against Napoleon, X-279a
 Coal-mining VII-110b; VIII-301a; lighting and safety lamps, VIII-379b; royalties, VII-379b
 Coal-mining, History of, VII-114b; employment of children, X-80b; VII-115b; in industrial revolution, VII-239b
 coal plough VIII-303a
 coal tar VIII-173b; dyes, VII-169b; industrial uses, VII-107b
 coal tit, bird, II-431b
 Coastal Command of R.A.F. X-292a
 coastal navigation IV-294a
 coastguards IV-228a
 Coast Life-Saving Corps IV-228a
 Coasts III-97a
 coati (raccoon), mammal, II-339a
 coat of arms IV-185a
 Coats and Cloaks XI-70b
 coaxial cable IV-77a
 cob, breed of horses, IX-288a
 cobalt, mineral, in animal food, VI-170b
 Cobbett, William (1762-1835), English writer, politician, and agriculturist, V-95b

- Cobden, Richard** (1804–65), political leader, V–97a
- Coblentz, Germany**, wine-making, VII–472a
- cob nuts** VI–295b
- Cobra, snake**, II–91a
- cobweb, spider's**, II–400a
- Coca Cola, drink**, XI–73b
- cocaine** XI–125a; as anaesthetic, XI–4b
- cocci, bacteria**, II–28b
- coccidiosis, animal disease**, VI–361a, 371b
- Cochin-China, state, Indo-China**, III–232a; I–249b; *map* III–87
- cochineal insect** II–363b
- Cochran, Sir Charles Blake** (1872–1951) show promoter, VII–178b
- Cochrane, Thomas**, 10th Earl of Dundonald (1775–1860), British admiral, V–400b
- Cockaigne**, concert overture by Elgar, V–153b
- cockatoo, parrot**, II–310a; IX–108a
- cockatrice (fabulous creature)**, I–169a
- cockchafer, beetle**, II–81b; as pest, VI–51b
- Cockcroft, Sir John** (1897–), English physicist, V–399b
- Cockcroft-Walton particle accelerator** VIII–209a
- cocker spaniel** *illus.* IX–192
- Cock-fighting** IX–144a
- Cockle, aquatic creature**, II–92a, 271b
- cockney, slang**, IV–419a
- cock-of-the-rock, chatterer, bird**, II–84a
- cockpit, cock-fighting ring**, IX–145a, 144b
- Cockroach, insect**, II–92b; in houses, XI–230b
- cocksfoot grass** II–183a; VI–210b, 211b
- Cockspur street, London**, IX–145a
- cocktails** XI–493a
- Cocles, Horatius** (6th cent. B.C.), legendary Roman soldier, IV–60b
- Cocoa and Chocolate** VII–118a; as beverage, XI–227b; cocoa beans, VI–68a
- coconut fibre** VI–94b
- coconut milk** VI–94b
- Coconuts** VI–93b; copra, VII–131a
- cocoon, of silk worm**, VI–416a, 417a
- Cocos (Keeling) Is., Indian Ocean**, III–231b; *map* III–322
- Cod, fish**, II–93a; fishing, IX–18b
- code: morse**, IV–268b; semaphore, IV–401b
- Codes and Ciphers** IV–106a
- Codes Napoléon**, body of French laws, V–328b
- codex, ancient book form**, IV–51a, 495b
- Codex Bezae** (early copy of part of New Testament) IV–79a
- Codex Sinaiticus** (early manuscript of Bible) I–422a; *illus.* I–69
- Cod Fishing** VI–95a
- codlin, apple**, VI–27b
- codling moth** II–239b
- Cody, William F. (Buffalo Bill)**, (1846–1917), American showman and cowboy, IX–136b; II–47b
- Co-education** X–98a
- coercive force, of magnetic materials, VIII–264b
- Coffee** VI–95b; as beverage, XI–226b–227b; coffee growing in Brazil, III–58a
- coffee cherry borer, insect pest**, VI–466a
- coffee-house** VII–88b; XI–226b
- Cofferdam** VIII–83b
- coffers** XI–53b
- Coffey still, distillation apparatus**, VII–162a
- Cognac, brandy**, VII–472a
- Coin Collecting** IX–145b
- Coining** VII–120a; metals, VII–311a; VIII–7a; the Mint, X–271a
- Coins** VII–121a; Greek, *illus.* XII–185
- coir, coconut fibre**, VI–94a; in brush-making, VII–60b
- coke** VIII–172b; coke-making, VIII–84b
- Coke, Thomas William, Earl of Leicester** (1752–1842), V–97b; VI–8a
- Coke Oven** VIII–84b
- Colbert, Jean Baptiste** (1619–83), French statesman, XII–1b
- Colchester, Essex, earthworks of**, I–151a
- Cold Drinks** XI–73b
- colds** XI–253a
- Cold Storage** VII–124a; eggs, VII–175a; fish, VII–192a; meat, VII–284a
- coleoptera, see beetles**
- Coleridge, Samuel Taylor** (1772–1834), poet, V–98a, 490b, 491a
- Colet, John** (c. 1467–1519), Dean of St. Paul's, V–159a
- coletis, butterfly**, II–65a
- coleus, garden plant**, VI–47a
- colie (mouse-bird)** II–436a
- collar-bone (clavicle)** XI–31b
- Collective Farming** VI–97a
- College of Arms, heraldry**, IV–186a; X–113b
- Colledo, 18th-cent. archbishop of Salzburg**, V–323b, 324a
- collet, of lathe**, VIII–248b
- collie, sheep dog**, VI–408b
- colliery, see coal-mines**
- Colling, Charles and Robert**, 18th-cent. cattle breeders, VI–8a
- Collins, Wilkie** (1824–89), English writer, XII–102a
- Collins, William** (1721–59), English poet, XII–308a
- Colloquies, essays by Erasmus**, V–159b
- collotype printing process** VII–365b
- Colne, Lancs., cotton industry**, VII–142b
- Cologne, Germany**, III–369a; *map* III–186
- Cologne school of painters** XII–170b
- Colombia, S. American republic**, III–99a; *map* III–415
- Colombia, Peoples of**, I–128a, 8a
- Colombo, Ceylon**, III–100a; *map* III–229
- colon, intestine**, XI–102a; *diag.* XI–101
- Colonial Education** X–99b
- Colonial Government, British**, X–101a
- colonies, British**, X–104b; government, X–101a; Secretary of State for, X–101b, 268a
- Colonies, History of**, X–102b
- colophony, resin**, VII–219a
- Colorado, river, Arizona, U.S.A.**, III–100b, 381a, 102b; Boulder dam, VIII–34a; *map* III–451
- Colorado, state, U.S.A.**, III–454a; *map* III–451
- Colorado Beetle** II–94a; VI–52b
- Colorado Canyon, Arizona, U.S.A.**, III–100b
- Colorado Desert, California, U.S.A.**, III–102a; VIII–76a
- coloration, of animals**, II–70b; of birds, II–45a; insects, II–331a, 64b; *illus.* II–opp. p. 336
- Colosseum, Rome**, XII–88a
- Colossus of Rhodes, statue**, XII–475b; III–133a
- colostrum, secretion**, XI–23b
- Colour** III–102b; in interior decoration, XI–257b; paints, XII–323b, 326b
- colour blindness** XI–152b
- colour films, cinema**, IX–456a
- colourings, food**, XI–416b
- colour photography** VIII–73b; VII–340a; IX–373b
- colour printing** VII–365b
- Colour Problem** X–107a; colour bar in South Africa, I–444b; X–423a; in U.S.A., I–14b
- colours, primary**, III–103a
- colours, regimental**, IV–149b
- colours, symbolic**, IV–416b
- colour-television** VIII–441a
- colugo, lemur, mammal**, II–243b
- Columbia, St. (6th cent.)**, I–431a
- Columbia University, New York, U.S.A.**, I–18a
- columbine, flower**, Index p. 64
- Columbine, pantomime character**, IX–272b
- Columbus, Christopher** (1451–1506), Italian explorer, V–99a
- Columella (1st cent. A.D.)**, Roman writer on husbandry, VI–407b
- column, in classical architecture**, XII–316a
- coma, diabetic**, XI–100a
- coma, lens aberration**, VIII–254a, b
- combat, trial by**, X–465a
- comber, fish**, II–372
- Combination Acts** VII–449a
- combine harvester, farm machine**, VI–223b
- Combines, industrial**, VII–125a
- combing, wool**, VII–488a
- Combustion** VIII–85b; early theories, VII–98b
- comedians** IX–138a; jesters, IX–298a; music-hall, IX–342a; radio, IX–102a
- Comédie Française, French theatre**, IX–462b
- Comedy** XII–89a; Greek, XII–186b; origin of word, XII–186a; Shakespearean, XII–415a, 91b
- comedy of manners** XII–91a, 374a
- Comenius, John Amos** (1592–1671), educational reformer, X–139b
- Comet, aircraft**, IX–10b; *illus.* VII–11
- Comets** III–104b
- comfrey, plant**, Index p. 67
- comic opera** XII–310a–311b
- Comic Sports** IX–146a
- Comic Verse** XII–92a
- comma butterfly** II–445b

- Commandos** X-108a; Boer, X-424b; paratroops, X-309b
Commedia dell'arte, early Italian drama, IX-272a, 319a
commentaries, radio, IX-98a
Commerce VII-125b; market, VII-279a; money, VII-298b; payment, VII-333a; retail trading, VII-375b; wholesaling, VII-469a; *see also* trade, history of; trade fairs
Commerce, Chambers of, VII-93b
commercial broadcasting IV-68b; programmes, IX-102a
commercial traveller VII-374a, 126b
Commission, official, X-109a
Commission, payment, VII-126a, 375a; auctioneers, VII-24a
Commissioner for oaths X-109b
Committee of Ways and Means, parliamentary, X-314b
committees, parliamentary, *see* parliamentary committees
commode XI-395a
Commodus, Lucius Aurelius (A.D. 161-192), Roman emperor, V-293a
common cold XI-253a
Common Council, of City of London, X-86a
Common Informer X-109b
Common Law X-232a; V-218b
Common Prayer, Book of, I-375a; V-110b
Commonwealth, *see* British Commonwealth
Commonwealth (1649-53) V-112b
Commonwealth Relations, Secretary of State for, X-61a
commune, French local government division, X-252b
communication cord, railway, IV-345b
Communion, Holy, sacrament, I-116a
Communism X-109b; British Communist Party, X-331b; in China, I-110a; collective farming, VI-97a; Lenin, V-269b; Russian constitution, X-385b; Stalin, V-424b; totalitarianism, X-454a; in trade unions, VII-455a; Trotsky, V-450b
Communist Manifesto, of Marx and Engels, V-297a; X-110a
Community Centres X-111a
commutator: of electric generator, VIII-131b-132b; of electric motor, VIII-134a
Como, lake, N. Italy, III-241a, 10b
Companies, business, VII-126b; combines, VII-125a
companies, livery, VII-105a
companies, public utility, VII-368b
Companies Act (1948) VII-158b
Companion of Honour, Order of, X-188a
Compass IV-109b; prismatic, surveying, VIII-428b; radio, IV-291a
compass-bearings IV-110a, 291a
compasses, drawing instrument, VIII-110b
compensation, in law, X-91a
compensation water VIII-478b
Compleat Angler, The, Izaak Walton, V-469b
Compline, form of evening service, I-325a
composing, type setting for printing, IV-335a, 336a
compositae, plant family, Index p. 71
composite aircraft IV-13a
Compostella, Spain, I-367a; XII-432a
Compost Heap VI-98b; potting compost, VI-354b
compounding, of exhaust steam, VIII-409a
compounds, chemical, III-83a
comprehensive school X-143a
compressed-air brakes, railway, IV-58a
compression-ignition engine VIII-229a, 231b
compression ratio, of petrol engines, VIII-232b
compression testing, of materials, VIII-418a
Compressor VIII-86b
Comptroller and Auditor-General, Treasury official, X-286a
Conan Doyle, see Doyle, Sir Arthur Conan
concentrates, animal foods, VI-171b; cattle food, VI-80b
concentration camp X-336b
concertina, musical instrument, IX-401a
Concerto XII-94a
Concerts IX-146b; broadcast, IX-100a; concert hall acoustics, VIII-1a
conch, great, pearl mussel, II-312b
concrete VIII-88b; pre-stressed, VIII-90a; reinforced, VIII-89b; in foundations, VIII-45a; in road building, VIII-376a; strength, *table* VIII-47
Concrete Construction VIII-88b
concrete-mixing machines VIII-91a
Condé, Prince Louis de Bourbon (1621-86), French soldier, X-34b
condensation VIII-406a
condenser VII-161a
Condenser, Electric, VIII-92b
condenser, steam, VIII-408b
Condiments and Relishes XI-74a
condition of contract, law, X-92a
Condor, bird, II-94b
Conducting, music, IX-149a
conduction, transmission of heat, III-213b
conductivity of metals VIII-287a; of alloys, VIII-8a
conductors, electricity, VIII-127a
conduit system, electricity, XI-131b
cone, geometric figure, VIII-188b
cones, pine and fir, VI-458b, 2a
coney, fur, VII-200a, 201a
Coney I., district, New York, U.S.A., III-312a; IX-209a
confectionery, see baking industry; cocoa and chocolate; sugar confectionery
Confederate States of America X-19b
confederation X-150b
confession, in Christian Church, I-417b
Confessions, J.-J. Rousseau, V-395a
Confessions, St. Augustine, V-22b
Confessions of an English Opium Eater, De Quincey, V-133a
Confirmation, in Christian Church, I-417b
Confucianism, Chinese philosophy, I-112b-115b
Confucius (Kung Fu Tzu, c. 550-479 B.C.), Chinese sage, V-100b
conger eel II-132b; IX-18b
Congleton, Cheshire, silk industry, VII-396a
Conglomerate, rock, III-105b
Congo, Belgian, equatorial Africa, III-48a; *map* III-5
Congo peoples I-339b, 95b; pygmies, I-387a
Congo River, central Africa, III-105b; *map* III-5
Congregationalist, member of one of the nonconformist Churches, I-129a
Congregation of the Holy Office, Roman Catholic Church, I-255b
Congress, of American constitution, X-21a
Congress of Industrial Organizations VII-455a
Congress Library, U.S.A., IV-111a
Congress of Berlin (1878) V-140b
Congress of Vienna (1814-15) V-307a, 307b, 437b
Congreve, William (1670-1729), English dramatist, VII-374a
conic sections, geometry, VIII-189b
coniferous forests III-170b; VI-172b
Conifers, cone-bearing trees, II-95a; VI-458b; seeds, VI-2a
Conjuring IX-150a, 300a
connecting rod, of internal combustion engine, VIII-229b, 407a
Connemara, district, Republic of Ireland, I-258b; III-236b
Connemara pony IX-289a
Conrad, Joseph (1857-1924), novelist, V-101b
conscientious objector X-308a
Conscription X-112a; conscientious objectors, X-308a
Conservancy Board X-113a
conservative party X-329b
conservatory XI-200b; *see also* glass-houses
consistory court X-69b
Consolidated Fund of the United Kingdom X-286a, 92b
'consol' signals, air navigation, IV-290b
consommé, soup, XI-418a
Constable, John (1776-1837), English landscape painter, V-102b; XII-474a; *illus.* XII-opp. pp. 448, 49
constable, police, X-323b
Constance, lake, Germany/Switzerland/Austria, III-368b
Constantine the Great (274-337), Roman emperor, V-104a; III-240a; empire, Index p. 53
Constantinople (Istanbul), capital city of Byzantine Empire, III-239b; XII-55a; Imperial Palace, XI-347b; St. Sophia's cathedral, XII-402a; centre of trade, VII-444a
constellations, of stars, III-107a, 23a
constituency, parliamentary, X-145b
constitution X-290b; American, X-20a; British, X-63a; *chart*, Index p. 56; French, X-167a; Russian, X-385b
constitutional monarchy X-273b, 314a; Bill of Rights, X-53b
Constitutions of Clarendon (1164) V-34b

- consular invoice VII-324b
 consular office X-163b
 consumption, *see* tuberculosis
 contact-breaker shaft, of petrol engine, VIII-230b
 contempt of court X-467b
 Continental Congresses X-26a
 Continental Drift, theory of land movement, III-110a
 Continental Shelf III-321a
 Continental System, Napoleon's, X-280a
 continuo, accompaniment, music, XII-315a
 contortionist, acrobat, IX-1a
 contours, on maps, IV-257b
 contract, law of, X-91b; lease, X-345b
 'contract in', trade union membership, VII-450b
 contraction, of substances, III-213a; VIII-154b
 'contraction rules', metal casting, VIII-322b
 contractor, building, VIII-42b, 44a
 contralto voice IX-428a; in opera, IX-350b, 351a
 contraprops, propellers, VIII-338b
 Control Commission, of Communist Party, U.S.S.R., X-386a
 control engineer, of power station, VIII-330b
 controls, flying, IV-4a, 154a
 control systems, airport, IV-292a, 381b; airfield control zone, IV-381b
 control systems, automatic, VIII-16a
 convection, heat transmission, III-213b
 convective heating VIII-197b
 Conversation XI-76a
 Conversation Piece, painting, XII-96a
 conveyor belt VIII-94b; coal-mining, VII-111a
 Conveyors VIII-94a
 convicts X-340a; transportation, X-460a
 convolvulus, flower, Index p. 66
 convoys, shipping, X-297b, 400b; cruisers, X-123a; U-boat attacks, X-435b
 Conway, Sir Martin (1856-1937), mountaineer, IX-333a
 Conway castle, N. Wales, *illus.* I-486
 Cook, James (1728-79), English explorer, V-105a; IV-142a; world known to Cook, *map* Index p. 51
 Cook, Thomas (1809-92), travel agent, IV-463a; VII-438b
 Cook Bay, Australia, IV-137a
 Cook Is., Pacific Ocean, III-113a; *map* III-323
 Cook, Mount (Aorangi), New Zealand, III-312b; IX-333a
 Cooke, Sir William (1806-79), English physicist, III-116a
 cookery books XI-375b
 cookies XI-25a
 Cooking, History of, XI-78b
 Cooking Stoves XI-82a
 cooking, training in, XI-107a
 cooking utensils XI-274b
 cooks XI-109b
 cooling towers, of power station, VIII-293b
 Cooper, James Fenimore (1789-1851), American writer, XII-15b
 Cooper, Samuel (1609-72), English miniature painter, XII-259b; *illus.* XII-260
 Co-operation in Farming VI-99a
 co-operative loan and savings banks VI-99b
 co-operative marketing VI-282a, 99b
 co-operative production: in China, I-112a; in Denmark, I-138a; in Finland, I-179a; *see also* collective farming
 Co-operative Societies VII-127b; VI-99b
 coopering (barrel making) VII-86a
 Cooper's Creek, river, S. Australia, III-39b; *map* III-41
 co-ordinates, in geometry, VIII-186b; of graphs, VIII-190a
 coot, bird, II-340b
 copaiba, resin, VII-219a
 copal, resin, VII-218b
 Co-partnership, industrial, VII-129a, 204a
 Copenhagen, Denmark, III-112a; I-137a; *map* III-160
 Copenhagen, Battle of (1801), V-333a
 Copernicus, Nicholas (1473-1543), Polish astronomer, V-106b
 Copley, John Singleton (1737-1815), American painter, XII-10a
 copper, metal, III-283b-284b; VIII-287b; engraving, VII-177b; refining, VIII-142a
 copper beech tree II-319b
 copper chloride, weed killer, VI-481b
 Copper-mining VII-130a; in Cornwall, VII-133a
 Coppers, butterflies, II-96b
 copper sulphate, weed killer, VI-481b
 Coppice VI-101a
 Copra VII-131a
 Coptic Church I-130a
 copyhold land tenure VI-258b
 Copyright IV-111b
 Copyright Acts IV-47a, 79a
 coracle, boat, IV-331b; VII-39b; *illus.* IV-84
 Coral, sea animal, II-97a
 coral coasts, of Pacific Ocean, III-98b
 Coral Islands III-112b
 coralline sea-weed, *illus.* II-374
 coral reefs III-113a, 200b
 coralroot, orchid, II-300b
 Coral Sea, battle (1942), X-265a
 coral seaweed II-374b
 coral snake II-232b
 coral spot, currant disease, VI-110a
 Coram, Thomas (c. 1668-1751), British merchant, X-78a
 Coram's School X-78b
 cor anglais, wind instrument, IX-488a
 coranto, dance, IX-50a
 Corbusier, *see* Le Corbusier
 Corday, Charlotte (1768-93), French patriot, X-47a
 Cordillera, *mt. range*, Colombia, S. America, III-99a; *map* III-415
 cordite, explosive, VIII-158a
 Cordoba, Argentina, S. America, III-19b; *map* III-415
 cordon, way of growing fruit trees, VI-368b; *illus.* VI-367
 Cordova, Spain, I-328a
 Cordwainers, Worshipful Company of, VII-54a, 107b
 core, of electric transformer, VIII-461a
 core-boxes, in metal casting, VIII-323a
 core-drilling, in mineral prospecting, VIII-342a
 Corelli, Arcangelo (1653-1713), Italian composer and violinist, XII-424a
 Corfe Castle, Dorset, *illus.* XI-472
 Corfu, Greece, III-205a
 corgi, Welsh dog, *illus.* IX-193
 Corinth, ancient, Greece, I-204a
 Corinthian order of architecture XII-316b
 Corinthians, amateur football club, IX-27a, 28b
Corinthians, Epistle to the, Index p. 125a
 Cork VII-131b; II-410a
 cork-oak tree II-410b
 Cormorant, sea-bird, II-99a
 corms, underground plant stems, II-411b; VI-59a
 corn VI-6b; barley, VI-40b; buckwheat, VI-58b; maize, VI-275a; millet, VI-288b; oats, VI-297a; rye, VI-394b; sweet corn, VI-436a; wheat, VI-486b; *see also* cereal crops
 corn-bunting, bird, II-145b, 144a
 corn cob VI-436a
 corncrake, bird, II-340a
 Cornelle, Pierre (1606-84), French dramatist, V-107b; XII-457b
 cornelian (carnelian), mineral, III-6a
 Cornelius, Roman centurion, New Testament, Index p. 125a
 Cornelius, St., Index p. 134b
 Cornell University, U.S.A., X-24b
 cornet, brass instrument, IX-94a, 89b; *illus.* IX-91
 cornflakes, breakfast food, XI-48a
 cornflour, cereal, XI-48a
 cornflower VI-114a, 25a; family, Index p. 71
 corn grading machines VI-207b
Cornhill, The, periodical, V-444b
 Cornish Mining VII-132a; *illus.* VII-436a
 Cornish Riviera Limited, train, IV-112a
 Corn Laws, for protection of English agriculture, V-97a; repeal of, V-355a
 corn oil VII-321a
 'corns', of skin, XI-408a
 corn salad, plant, VI-398a
 'Corn-stalks', people of New South Wales, Australia, I-50a
 Cornwall, *co.*, England, III-157a; china clay mining, VII-103a; tin mining, VII-132a
 Cornwall, Duchy of, X-121b
 Cornwallis, Charles, 1st Marquess (1738-1805), British general, V-470b
 Coromandel Coast, India, III-228a
 corona, ring of light rays, III-363b; of sun, III-426a; *illus.* III-425
 Coronation X-113b
 Coroner X-114b
 Corot, Jean (1796-1875), French painter, XII-237b; *illus.* XII-238
 corps, army, X-41b
 Corpus Christi, festival of Christian Church, I-123a; IX-286b

- corpuscles, of blood, II-50b
 correction, houses of, X-338a
 correction of proofs, printing, *illus.* VII-359b
 Correggio, Antonio (1494-1534), Italian painter, XII-216b; *illus.* XII-218
 correspondents, newspaper, IV-358b, 300b
 'corridors', air (fixed navigational channels), IV-381b
corries, formed by glaciation, III-191a
 Corrosion VIII-96b; prevention, VIII-422b
 corsets XI-187a
 Corsica, I, Mediterranean Sea, III-114a; *map* III-160
 Corsicans III-114a
 Cort, Henry (1740-1800), British inventor, VIII-237b
 Cortés, Hernando (1485-1547), Spanish conqueror of Mexico, V-109a
 corundum, mineral, III-393a
 corvette, ship, X-297b
 corvina fishery VI-158a
 Cos, I., Aegean Sea, III-132a, b
 cosecant, of triangle, VIII-463b
Così fan tutte, opera by Mozart, V-324b
 cosine, of triangle, VIII-463b
 Cosmati work, mosaic, XII-281b
 Cosmetics, History of, XI-84b
 Cosmetics Industry VII-134b
 Cosmic Rays III-116a
 cosmotron, particle accelerator, VIII-212a
 Cossacks, Turkish peoples of U.S.S.R., I-130b; dances, IX-232a
 costard, apple, VI-27b
 Costa Rica, Central American republic, III-78a; people, I-101a, 7a; *map* I-100
 Coste Professor M.P., French scientist, VI-312a
 costers' parades, in horse shows, IX-293a
 Costing, industrial, VII-135a
 Cost of Living VII-136b; 'real' wage, VII-464a
 costume, European peasant, XI-148b
 Costume, History of, XI-86b; oriental, XI-339b; primitive, XI-367a
 Cosway, Richard (1742-1821), English miniature painter, XII-260b
 cotangent, of triangle, VIII-463b
 Côte d'Azur, S. France, III-174b; *map* III-173
 Côte d'Or, France, wine trade, VII-471b
 cotillon, dance, IX-50b
 cotinga, blue, bird, II-84a
 Cotman, John Sell (1782-1842), British painter, XII-473b, 474a; *illus.* VII, opp. p. 384
 cotoneaster, flowering shrub, VI-165b; II-169b
 Cotopaxi, volcano, Ecuador, S. America, III-147b; *map* III-415
 Cotswold hills, Glos., III-157a; VII-480a
 Cotton VI-101b; Index p. 65
 cotton-grass, moorland plant, II-200b; Index p. 71
 Cotton Industry VII-137b, 142a; industrial revolution, VII-240b
 Cotton Manufacture VII-140a; printed fabrics, VII-431b
 cotton-seed cake VI-103a
 cotton-seed oil VII-321a
 Cotton's Patent machine VII-227b, 228b
 cotton spinner, sea-animal, II-369b
 cotton-stainer (red bug) II-59a; VI-466a
 cottony cushion-scale, insect pest, VI-466b
 cotyledon, seed leaf, of plants, II-378b, 155b
 coucal (ground cuckoo) II-112b
 coucher (setter), gun dog, IX-192b
 couch-grass II-183a; sea couch grass, II-376a
 coulomb, unit of electricity measurement, VIII-273b
 Council for the Encouragement of Music and Arts IX-27b
 Council of Europe, for international co-operation, X-214a
 Council of the Four Hundred, ancient Athens, V-421b
 Council of the Republic, France, X-167b
 Council of States, Indian government, X-205b
 Council of Ten, medieval Venice, X-88a
 council houses, X-199a
 councillor, county and borough, X-242b
 counsel, *see* Queen's Counsel
 counter, electronic, VIII-137b-138b
 counterpoint, in music, XII-190a
 Counter-Reformation, of Roman Catholic Church, I-395b, 118b; XII-41a; Society of Jesus, V-285a
 countersinking, drilling, VIII-113b
 Counting, History of, IV-112b
 Counting Instruments IV-115a; accounting machines, VII-1a; VIII-51b
Count of Monte Cristo, Alexandre Dumas, V-148b; III-276b
 country dancing IX-230a, 173a; British, IX-236a, 174b
 county X-246b
 County Agricultural Executive Committee VI-290a
 county athletic associations IX-34b
 county borough council X-242a
 county college X-142b
 county council X-241b; Scottish, X-251a
 County Court X-115a; judges, X-219b
 county cricket IX-158a
 Couplings, Railway, IV-116b
 'courants', early newsbooks, IV-302b
 Courbet, Gustave (1819-77), French painter, V-109b; XII-237b
 courier, messenger, IV-267a
 courlan, bird, II-104b
 Coursing, hunting, IX-152b
 court, *see* Law Courts; Royal Household
 Courtauld's, British textile company, VII-396a, 372b
 Courtenay device, of buoy, IV-71b
 Court etiquette XI-146a
 Court Martial X-116a
 Court of Appeal X-29b
 Court of Criminal Appeal X-30a
 Court of High Commission X-53b
 Court of Session X-391a
 courtship dances IX-235a
 courtship of animals II-13a
 couvade, birth ceremony, I-71b
 Covenant, book of the, Hebrew law, I-219b
 Covent Garden Market VI-215b; *illus.* VII-215
 Covent Garden Theatre IX-463b
 Coverdale, Miles (1588-1668), Bible translator, XII-459b
 coverlets XI-19b
 cowboys VI-82b
 Cowes Week, sailing regatta, IX-424b
 cow-fish II-326b
 Cowley, Abraham (1618-67), English poet, XII-258a
 cowman VI-79a, 149a
 cow parsley, plant, *illus.* II-158; Index p. 65
 Cowper, William (1731-1800), letters of, XII-242b
 Cowper stoves VIII-26a
 Cowry, shell-animal, II-100a; cowry shells as currency, VII-355b
 cows VI-74a; breeds, VI-76a; care of, VI-79a; digestion, II-294a
 cow-shark II-384b
 cowsheds VI-79b, 138b
 cowslip, flower, Index p. 66
 cow-wheat, plant, II-308b
 coxcomb, of jester, IX-298b
 coxswain (cox), in rowing crew, IX-414a
 coyote, wolf, II-473b
 Coypu (nutria), rodent, II-100b
 Cozens, Alexander (c. 1715-86), painter, XII-473b
 Cozens, John Robert (1752-97), painter, XII-473b
 Crab II-100b; respiration, II-349a; *illus.* II-265
 Crab and Lobster Fishing VI-103a
 crab-apple: fruit, VI-30, 27b; ornamental tree, VI-458a
 Crabbe, George (1754-1832), English poet, XII-295b
 crab pot VI-103b
 crab-spider II-400a
 crack detection, metal, VIII-469b
 Cracow, Poland, III-345a; I-369a; *map* III-160
 Craft Guilds VII-143a; building guilds, VII-64b; guild halls, XII-368b; guild plays, XII-261a
 crafts, rural, VI-391b
 Craftsmanship VII-146a
 'crag and tail' hills III-192a
 crag martin, bird, II-416a
 cramp, tool, *illus.* VII-82
 Cranach, Lucas (1472-1553), German painter, XII-171a, 350a
 cranberry, Index p. 66
 Crane, bird, II-104a
 crane dredger IV-130b
 Crane-fly, insect, II-104b; VI-326b
 Cranes, mechanical, VIII-98b, 278a
 cranesbill, plant, VI-482b; Index p. 65
 cranium, part of skull, XI-31a
 crank, punishment, X-340a
 crankshaft, of internal combustion engine, VIII-229b, 407a

Cranmer, Thomas (1489–1556), archbishop of Canterbury, V–110a
 Cranwell R.A.F. College X–12a
 crap-shooting (craps), dice game, IX–182b
 Crashaw, Richard (1612–49), English poet, XII–258b
 Crassus, Marcus Licinius (115–53 B.C.), Roman nobleman, V–252b
 Cratinus (c. 520–c. 423 B.C.), Greek comedy writer, XII–187b
 crawfish (spiny rock lobster) II–253b; VI–104a
 crayfish II–253b
 cream VII–154b
 cream, cosmetic, VII–135a
 Creation, Epic of, Babylonian myth, I–61b
Creation, The, oratorio by Haydn, V–216b
 creation myths I–61b, 221a; festivals, of pagan religions, I–122b
 Crécy, battle (1346), X–200b
 Credit VII–147a; book-keeping, VII–50a
 Creditanstalt, Austrian bank, VII–31a
 credit note VII–251a
 Creed: Apostles', I–116a; Athanasian, V–22a; of Nicaea, I–116a
 creel, lobster trap, VI–103b
 'creep', deformation of metals, VIII–286b
 creeping jenny, plant, VI–123a; II–408b
 creole (descendant of West Indian settlers) I–489a
 creosote VII–435a
 cress VI–398a; watercress, VI–477a; Index p. 64
 crest, armour, *illus.* X–37b
 crest, heraldic, IV–185a
 crested dogstail, grass, VI–210b
 crested grebe, bird, II–185b
 Cretaceous age, *table* III–139
 Crete, I., Mediterranean Sea, III–116b; *map* III–160; German invasion in Second World War, X–17a
 Crete, ancient, I–317a; XII–229a
 cretin, deformed idiot, XI–139a
 crew: air, IV–13a, 3a; ship's, IV–407b
 cribbage, card game, IX–113b
 cribrella, starfish, II–406b
 Crichton, James, 'The Admirable' (1560–82), Scottish scholar, X–477a
 Cricket, insect, II–105a, 381b; VI–466b
 Cricket IX–153b
 Cricket, County, IX–158a
 Cricket, History of, IX–160a
 Cricket, M.C.C., IX–163b
 Cricket, Test, IX–164a
 cricket bat willow VI–458a
 Crick Run, athletic event, IX–32a
cri de haro, initial appeal, Channel Islands law, X–231b
Crime and Punishment, Dostoevsky, V–143b
 Crimea, S. Ukraine, U.S.S.R., III–450a; *map* III–54
 Crimean War X–117b; V–347a; *illus.* X–45
 Criminal Appeal, Court of, X–30a
 Criminal Investigation Department, *see* C.I.D.
 Criminal Justice Act (1948), X–356b

Criminal Law X–118a
 Criminal Record Office X–83a
 crinkle, strawberry disease, VI–431b
 crinoids, starfish, II–407a
 crinolines XI–187a, 91a
cristallo, glass, VII–206a
Criterion, the, periodical, XII–337a
 'critical mass', of uranium, VIII–314b
 'critical size', of uranium-graphite, VIII–315b
 criticism, literary, XII–244a
Critique of Judgment, of Practical Reason, of Pure Reason, philosophical works by Immanuel Kant, V–255a
 Crivelli, Carlo (c. 1430–95), Venetian painter, XII–466b; *illus.* XII–342
 Croatia, *region*, Yugoslavia, III–494b
 Croat language IV–420a
 Croats, Yugoslav peoples, I–494a
 Croce, Benedetto (1866–1953), Italian philosopher, XII–221a
 Crochet XI–91b
 crockets, ornament, architecture, XII–81a; *illus.* XII–79
 Crocodile II–106a; skins, VII–226a, 227a
 crocus, plant, II–411b; VI–492b, 59a; autumn crocus, II–246a; *illus.* II–245; family, Index p. 69
 Croesus (6th cent. B.C.), King of Lydia, V–111b; VII–121b
 Crofters' Act (1886) VI–104b
 Crofting VI–104a
 Crome, John (1768–1821), English painter, XII–237a
 cromlechs, prehistoric tombs, I–303a
 Crompton, Samuel (1753–1827), British inventor, VII–485a
 Cromwell, Oliver (1599–1658), Lord Protector of the British Commonwealth, V–112a; dissolving the Rump Parliament, *illus.* X–313; postage system, IV–327b
 Cromwell, Richard (1626–1712), English statesman, V–114b
 Cromwell, Thomas (c. 1485–1540), secretary to Henry VIII, V–219b
 Cronus, god, Greek mythol., Index p. 139a
 crops: arable crops, VI–31a; cabbage crops, VI–64a, 65a; cultivation of, VI–105b; diseases of, VI–339a; distribution of, VI–132b; failure of, VI–128a; fibre crops, VI–151b; fruit crops, VI–178a; history of, VI–4a, 7b; improvement of, VII–336a; irrigation, VI–253b; leguminous crops, VI–261b; market garden crops, VI–280b; pests of, VI–325b; root crops, VI–383a; rotation of crops, VI–388a; vegetable garden, VI–471b, 17a; *see also* cereal crops; tropical crops
 Croquet, ball game, IX–165a
 crossbill, bird, II–145b
 cross-bow X–489b
 Cross-country Races IX–166a
 Crosses, Stone, XII–96b; *illus.* XII–253
 crossings, street, IV–371b; crossing-sweepers, IV–440a
 cross-leaved heath, moorland plant, II–200b
 cross-pollination VI–151a
 cross-staff, navigational instrument, IV–288a

crossword puzzles IX–394b
 croton, plant, VI–301b
 crowbar, lever, VIII–281a
 crowberry, moorland plant, II–200b
 crowd shovel VIII–119a
 Crown, British, X–120a; assent to acts of parliament, X–3a; and cabinet government, X–266b; coronation, X–113b; Privy Council, X–342b; *chart*, Index p. 56; *see also* monarchy
 crown, coin, VII–124a
 crown, paper size, IV–54b
 crown and anchor, dice game, IX–183a
 Crown colony X–61a, 101b
 crown gall, plant disease, VI–341b, 339a
 crown wheel, of clock, VIII–78b
 Crows II–108a
 crucian carp, freshwater fish, II–75a
 crucible furnace VIII–237b
 cruciferae, flower family, Index p. 64
 crucks, roof beams, XI–386b
 cruets XI–74a
 Cruft's dog show IX–198b
 Cruikshank, Amos (1808–95), cattle breeder, VI–78a
 Cruikshank, George (1792–1878), caricaturist, IV–197b; XII–141b
 Cruiser X–122a
 cruising IX–381b
 Crusades I–131a, 88b; castle building, XI–45a; *illus.* X–164; knights, I–281a
 crusher gauge, measuring instrument, VIII–334b
 crushing strength, of concrete, VIII–89b
 Crustacea, shell animals, II–109b; III–261a
 cryptic coloration, of animals, II–331b
 cryptogam, flowerless plant, II–89a
 cryptography, code writing, IV–106a
 crystal, mineral, III–289b
 crystal-gazing, method of fortune-telling, IX–244a
 crystallography, branch of geology, III–183a
 Crystal Palace, London, XII–97a; VIII–419b; fireworks, IX–228a; *illus.* VII–183
 crystal valves VIII–470a
 crystal wireless set IV–70b
 C.T.C. (Cyclists' Touring Club) IX–168b
 Ctesiphon, palace, ancient Persia, XII–338a
 Cuba, I., West Indies, III–484b, 485b; colonial history, X–106b; people, I–487b, 8b
 cube, figure, geometry, VIII–188b
 Cubism, modern art, XII–266b
 cubit, ancient measure, IV–262a
 cub-shark, sea animal, II–385a
 Cuckoo, bird, II–110b
 cuckoo-bee, insect, II–60a
 cuckoo-flower, Index p. 64
 cuckoo-pint, plant, II–324a; family, Index p. 70
 cuckoo-spit II–166a
 cucujos, beetle, II–146b
 Cucumber VI–105a; pests, VI–27b, 124b
 cucumber, sea, II–369a
 cucumber, squirting, II–380b
 cuirass, breastplate, X–37a, 38a
 cuirassier, cavalry, X–75a
 cuir bouilli, leather, VII–265b

cuisse, armour, *illus.* X-37
 Culbin Forest, Morayshire, Index p. 95
 Cullinan, the, diamond, III-132a
 Cullogen, Battle of (1746), V-431a
 Cultivations VI-105b
 Cultivators, soil, VI-107b, 142a
 'culture', environment, XI-415b
 culverin, artillery, *illus.* X-43b
 Cumberland, district, N. England, III-155a; graphite mines, VII-214a
 cumulonimbus, cloud-formation, III-96a, 436b; *illus.* III-95
 cumulus, cloud-formation, III-94b, 436b
 Cunard White Star Line, shipping, IV-435b, 341a
 Cuneiform Writing IV-117b
 cunning cat squirrel, raccoon, II-339b
 Cunobelin (Cymbeline), 1st-cent. A.D. King of Celts, I-98b
 Cupani, Francis, 17th-cent. priest, VI-436b
 cupboard XI-54a, 184a
 cup coral, sea animal, *illus.* II-97, 98
 cupellation, metal refining, VII-396b, 21b
 Cup Final, national football contest, IX-30b
 Cupid, Roman god, Index p. 139a; *see also* Eros
 cupola, furnace, VIII-63b
 cuprammonium process, in textile manufacture, VII-373a
 cupro-nickel, alloy, VII-311a; VIII-7a
 Curaçao, I., West Indies, III-484b
 curate, assistant priest, Church of England, I-128a
 curds, in cheese-making, XI-52a
 Curfew X-123b
 Curie, Irène (20th cent.), French scientist, XI-374b
 Curie, Marie (1867-1934), Polish chemist, V-114b
 Curie, Pierre (1859-1906), French physicist, V-114b
 curing, meat, XI-181a, 182a
 curlew, bird, II-452a; *illus.* II-451
 Curling, sport, IX-167a
 curragh, primitive boat, IV-84b; VI-157a
 currant clearwing, moth, II-90a
 Currants and Gooseberries VI-109a; fertilization, VI-151a; pests, VI-26b, 27a, 63a; dried currants, VII-216b
 Currency VII-149a; hard, VII-222b; of various countries, Index p. 118
 Currency Control X-124a
 current account, banking, VII-28a
 current meter, electricity, VII-222b
 currents, ocean, III-323a; measurement, VIII-222b
 curricule, horse-carriage, IV-195a
 curry XI-383a
 Curryng, leather process, VII-150b
 curses I-450b
 cursive script, handwriting, IV-180a
 Curtains and Wall-hangings XI-93b; lace curtains, VII-263a
 Curtis Cup, golf, IX-262a
 Curwen, John (1816-80), founder of tonic sol-fa method, music, XII-456a
 cushion-starfish II-406b
 cusping, ornament, *illus.* XII-320

custards XI-397a
 customs, traditional, I-179b
 Customs and Excise X-125b; tariffs, VII-427b; on beer, VII-41a, b; on spirits, VII-236b
 cut and drawn work, embroidery, XI-322b
 Cuthbert, St., of Durham (c. 635-687), I-124a, 368b
 cutlass, weapon, X-490a
 cutlass-fish II-259a
 cutlery XI-444a
 Cutlery Industry VII-152a
 cuts and wounds XI-169a
 cutter, sailing vessel, IV-390a; IX-422b; 'J' class racing cutters, IX-491a; *illus.* IX-423
 cutter-head, vibrator, in sound recording, VIII-400a
 cutting oils VIII-248b
 cuttings, *see* fruit propagation; plant propagation
 cutting tools VIII-261a; tempering, VIII-203a
 Cuttlefish and Squid II-113a, 283a; fishing, VI-299a
 Cutty Sark, sailing ship, IV-118a
 cutworm II-291a; VI-62b
 Cuvilliers, François (1695-1768), Belgian architect, XII-378a
 Cuyp, Albert (1620-1691), Dutch painter, XII-117a
 Cuzco, Peru, S. America, III-338b
 cwms, formed by glaciation, III-191a
 cyanide, chemical, VII-212b, 397a
 Cybele (Rhea), in Greek mythol., Index p. 139a
 cybernetics XI-307b
 cyclamen, plant, VI-59a, 245a; family, Index p. 66
 cycle, of vibrations, VIII-473b
 Cycle Racing IX-168b
 Cycling IX-167b
 Cyclists' Touring Club IX-168b
 cycloid curve, gearing, VIII-183a
 cyclone (area of low pressure in atmosphere) III-479a, 92a
 cyclone (hurricane) III-221a
 cyclopes, giants, Greek mythol., I-335a; Index p. 139a
 cyclotron, particle accelerator, VIII-210b
 cygnet, young swan, II-417b
 cylinder, figure, geometry, VIII-188b
 cylinder, of internal combustion engine, VIII-229b, 407a
 cymbals, percussion instrument, IX-366b, 339a; *illus.* IX-364
 Cymbeline (Cunobelin), Celtic king of 1st cent. A.D., I-98b
 Cynewulf, 8th-cent. Anglo-Saxon poet, XII-131a
 Cynics, Greek philosophical sect, V-139a
 cyperaceae, plant family, Index p. 71
 cypress, tree, VI-458b
 Cypriots I-134a
 Cyprus III-117b; I-281b; land reclamation, III-408a; map III-17; Turkish minority, I-135a
 Cyrenaica, region, Libya, N. Africa, III-256b-257b
 Cyril, St., 9th-cent. apostle of Slavs, I-135b

Cyrillic alphabet, of Slavonic languages IV-420a, 24a
 Cyrus the Great (d. 529 B.C.), founder of Persian empire, V-116b
 Czech language IV-420a, 219a
 Czechoslovakia III-119a; map III-160
 Czechoslovaks I-135a
 Czechs, of E. Czechoslovakia, I-135a
 Czestochowa, Poland, III-344b
 dab, flat-fish, II-152b; IX-18b
 dabchick, bird, II-185a
 dace, fish, II-74a; IX-16b
 dachshund, dog, IX-195a, 294b
 Daci, E. European tribe conquered by Romans, I-413a
 dactyl foot, poetry, XII-468b
 daddums, game, IX-388a
 daddy-long-legs, crane-fly, II-104b; VI-326b
 Dadidjah (Anti-Christ), Moslem religion, I-431a
 Daedalus, character in Greek legend, Index, p. 139a
 Daevas, demons, Persian religion, I-429a
 daffodil VI-59a; II-379a; family, Index p. 69
 Da Gama, Vasco (c. 1460-1524), Portuguese navigator and explorer, V-117a
 Dagenham, Essex, motor industry, VII-303b
 Dagestan, district, E. Caucasus, U.S.S.R., III-76a; map III-75
 daggers, night-flying moths, II-290b
 Dagon, Philistine god, Index p. 125a
 Daguerre, Louis (1789-1851), French scientist, VII-338b
 daguerrotype VII-338b
 Dahl, Dr. Andreas, 18th-cent. Swedish botanist, VI-111a
 Dahlia VI-111a; pests, VI-62a; family, Index p. 71
 dahlia anemone, sea animal, II-368b
 Dahomey, region, French West Africa, III-208b; map III-5
 Daily Mail, Daily News, Daily Telegraph, newspapers, IV-305b; VII-306b
 daimler, car, VIII-154a
 Daimyos, clan-chieftains, Japan, I-268b
 dairy cattle VI-76a, care of, VI-79a
 dairy farming VI-79a, 76b; history of, VI-6b, 8a; distribution of, VI-135a
 dairy farming, tropical, VI-22b
 Dairy Industry VII-154a; cheeses, XI-52a; milk purity, X-161b
 Dairy Machinery VI-112b
 Daisy Family VI-114a; Index p. 71
 Dakar, port, French West Africa, III-176b, 209a; map III-5
 Dakota, aircraft, IX-10b; in Berlin 'air-lift', X-460a
 Dakota, North and South, states, U.S.A., III-454a, 484a; map III-451
 Dakshma (Tower of Silence), Parsee religion, I-353a
 Dalai Lama, high priest and ruler of Tibet, I-474a
 dales, valleys, northern England, III-155b, 461a; Index p. 85

- Dali, Salvador (b. 1904), Spanish painter, XII-445a
- Dalmatia, region, Yugoslavia, III-494a-495b, 98a
- Dalmatian, dog, *illus.* IX-192
- Dalmatians I-492a
- Dalton, John (1766-1844), English scientist, V-118a
- damages, law, X-91a
- damar, resin, VII-219a
- damascening, inlay, VII-210a
- Damascus, Syria, III-120a; *map* III-17; in New Testament, Index p. 125a
- damask cloth XI-189b; *illus.* XI-190
- dam-buster, bomb, X-16a, 58a
- dame-school X-446a
- Damien, Father (1840-89), Belgian monk, V-118b
- Damocles, character in Greek legend, Index p. 139a
- Damon, 5th-cent. B.C. Greek musician, V-358b
- Damp XI-96a; damp-proof course, building, XI-96a; VIII-38b
- Dampier, William (1652-1715), English explorer and writer, V-120a
- 'damping off', seed disease, VI-353a
- Dams VIII-103a; IV-238b; Shasta dam, California, VIII-69a, 95a
- damsel-fly, dragonfly, II-123a
- damsons VI-347a
- Danaids, in Greek legend, Index p. 139a
- Dance Bands IX-171a
- Dance Music XII-98a
- dances XII-98a
- dancing: ballet, IX-45a; ballroom, IX-49b; folk, IX-230a; British, IX-236a; Greek, IX-264b; Scottish, IX-238a
- Dancing, History of, IX-173a
- dancing, as religious rite, I-405a
- dandelion VI-114a; II-355b, 379b; Russian, VI-391b; family, Index p. 71
- dandruff, skin infection, XI-205b
- dandy-horse, forerunner of bicycle, IV-44b
- Danegeld, tax, X-443b
- 'Danelaw', area of England subject to Danish rule, V-10b
- Danes I-137a; invasion of Britain, I-77a
- Daniel*, book of the Bible, I-70a, 421a
- Daniel, Hebrew prophet, Index p. 125a
- Danish language IV-394b
- Danish pastry XI-352a
- Danish territories III-395a, 164a; Greenland, III-205b; Polar regions, III-345b
- Dante (Dante Alighieri, 1265-1321), Italian poet, V-120a; XII-429a; *The Divine Comedy*, XII-105b
- Danton, Georges Jacques (1759-94), leader of French Revolution, V-122a
- Danube, river, III-120b; European Commission of, III-122a
- Danzig, port, Poland, III-345a, 46b; *map* III-160
- daphne, shrub, VI-492a
- daphnia (water-flea) II-109b
- Darby, Abraham (1677-1717), English ironmaster, VIII-236b
- Dardanelles, straits, Turkey, III-55a; British expedition in First World War, X-160a
- Dar-es-Salaam, port, Tanganyika, E. Africa, III-142a
- daric, coin, VII-121b
- Daring*, British destroyer, X-132a
- Dario, Rubén (1867-1916), Spanish-American poet, XII-433b
- Darius I (548-485 B.C.), King of Persia, V-123a
- Darius III (4th cent. B.C.), King of Persia, V-10a
- Darjeeling, Himalayas, N.E. India, III-217a; *map* III-229
- Dark Ages (c. 5th-11th cent.) I-138a
- Dark Lady of the Sonnets V-411b
- Darmstädter Bank, Germany, VII-31a
- darning XI-308a
- Darney, Henry Stewart, Lord (1545-67) V-298b
- darter (snake bird) II-99b
- darter, freshwater fish, II-315b
- Dartmoor, Devon, III-157a
- Dartmoor pony IX-289b
- Dartmouth, Royal Naval College, X-296a
- Darts, game, IX-176a
- Darwin, Charles (1809-82), British scientist, V-123b; VI-122a
- Das Kapital*, Karl Marx, X-70b; V-296b
- Date Line, International, in time reckoning, III-68a; *map* III-323
- Date Palms VI-114b; fruit, II-168b
- Daumier, Honoré (1808-79), French caricature artist, XII-59a
- Davenant, Sir William (1606-68), English poet and dramatist, IX-316a, 7a
- David I (c. 1080-1153), King of Scotland, V-126a
- David, Jacques Louis (1748-1825), French painter, XII-161b; *illus.* XII-162; V-328
- David, King of Israel (1038-970 B.C.), V-126b; Biblical references, Index p. 125b
- David, St. (c. 6th cent.), patron saint of Wales, V-128a
- David Copperfield*, novel by Charles Dickens, V-137b
- Davidson, Emily, suffragette, X-495a
- Davis, John (c. 1550-1605), British explorer, V-128b
- Davis Cup, lawn tennis trophy, IX-309a
- Davis escape apparatus, submarines, X-436b
- Davy, Sir Humphry (1778-1829), British scientist and inventor, V-129a; VIII-121a; VII-338b, 116b
- Davy safety lamp VIII-380a
- Dawson's Dawn Man, fossil remains, I-183b
- day continuation school X-142b
- Day Nurseries X-128a, 301b
- days of grace, financial, VII-44a
- D.C. electricity, *see* direct current
- D.D.T. insecticide, VI-248b, 467a
- deacon, deaconess, office, in Church of England, I-128a
- Dead, Book of the*, Egyptian sacred book, I-419b
- dead-leaf butterfly (kallima) II-65b, 332b; *illus.* II, opp. p. 336
- deadly nightshade, plant, II-324a; Index p. 66
- dead man's handle, of electric train, VIII-432b
- dead men's fingers (early purple orchid) II-300b
- deadnettle, plant, II-324b, 347b; Index p. 68
- dead-reckoning, method of navigation, IV-294b
- Dead Sea, Israel/Jordan, III-122a
- deaf-blind alphabet IV-120a
- Deaf Languages IV-119a
- deafness XI-128b; schools for the deaf, X-428b
- deal, wood, VII-402b
- deal-fish (vaagmaal) II-352b
- Dean, Forest of, VIII-235b
- dean and chapter, of cathedral, I-127a
- Dean of Guild Court, Scotland, X-252a
- death XI-284b
- death cap fungus II-172a; *illus.* II-170b
- Death Ceremonies I-139a
- Death Duties X-128a
- Death Gulch, Yellowstone Park, U.S.A., III-181a
- death penalty, *see* capital punishment
- death-rate X-482b, 349b
- death's head moth II-197b
- Death Valley, California, U.S.A., III-451a
- Death-watch Beetle II-114a; extermination, XI-230a
- debate, parliamentary, X-2a, 194a
- De Beers Consolidated Mines VII-159a
- Debentures VII-156b
- debit, book-keeping, VII-50a
- Deborah, Hebrew prophetess (Judges iv. 4), *see* prophecy
- debt X-50a; bill of exchange, VII-43b; County Court actions, X-115b; imprisonment for, X-340b
- Debureau, Jean Gaspard, 19th-cent. French mime actor, IX-319a
- Debussy, Claude Achille (1862-1918), French composer, V-130a; XII-269b
- Decameron*, collection of short stories by Boccaccio, V-48b, 49a
- decasyllabic line, poetry, XII-470b
- Decca, radio navigation system, IV-94a, 297a
- Deccan, region, India, III-228a, 230a
- December moth, II-235b
- decemvirs, officers in Roman constitution, I-410a
- decibel, unit of measurement, sound, VIII-1b
- deciduous trees VI-456a; II-241b; shrubs, VI-191a; forests, III-170b
- decimal system, arithmetic, VIII-13a; IV-114a
- Decimal (Dewey) system, library classification, IV-91a
- Deck Games IX-177a
- Declaration of Human Rights (1948) X-270b
- Declaration of Independence, American, X-20b; *illus.* X-25
- decompression chamber, diving, IV-128a
- decorated period, medieval architecture, XII-177b, 81a, 464b
- decoration XII-319b

decoration, household, *see* interior decoration
 decree nisi, divorce law, X-134a
 Dee, river, England/Wales, III-470b; VIII-216b
 deep-level mining VIII-300b
 Deep-sea Fishes II-114b
 deep-sea navigation IV-295a, 287b
 Deep South, southern states of U.S.A., III-453a
 Deer II-116a; digestion, II-294a; hunting, IX-442b
 deer forests IX-179b
 deerhound, Scottish, IX-192a
 Deer Stalking IX-179b
 defamation of character, in law, X-240b
 defences: animal, II-70b; insect, II-331a; plant, II-323a
 defences, *see* fortifications
 defences, earthworks, of Britain, I-150a
 Defender of the Faith (*Fidei Defensor*), title conferred upon Henry VIII, V-219a
 deferred payment VII-148b
 Deficiency Diseases XI-96b
 deflexion of materials VIII-418b
 Defoe, Daniel (c. 1660-1731), English writer, V-131a
 Degas, Edgar (1834-1917), French painter, XII-162b, 334a; *illus.* XII-333; VII-281
 De Havilland *Comet*, aircraft, IX-10b
 dehiscent fruits II-167b
 de-icing equipment, aircraft, IV-4a, b
 Deity I-196b
 Dejeuner sur l'herbe, picture by Édouard Manet, V-289b
 Dekker, Thomas (c. 1570-1632), English dramatist, XII-91b
 Delacroix, Eugène (1798-1863), French painter, V-132a; *illus.* XII-388
 Delagoa Bay (Lourenço Marques), port, Portuguese East Africa, III-142b; map III-5
 Delaware, river, U.S.A., III-14b
 Delaware, state, U.S.A., III-452b
 delayed-action bomb X-57b
 delft pottery VII-170b, 433b
 Delhi, India, III-123a; map III-229
 Dellah, Philistine woman, Index p. 125b
 Delphi, Greece, I-201a
 Delphic oracle I-144a; III-181a
 Delphinium VI-115b; Index p. 64
 Delta, aircraft, VIII-3b
 delta, of river-mouth, III-372b
 demarch, officer, Athenian constitution, I-205b
 deme, political division, ancient Athens, I-205b
 demerara sugar III-208a
 Demeter, Greek goddess, Index p. 139a
 Democracy X-129a; in ancient Athens, I-205a; V-421b
 Democrats, U.S. political party, X-332a
 demoiselle, dragonfly, II-123a
 demons I-429a, 27a
 Demosthenes (c. 383-322 B.C.), Athenian orator and statesman, V-132b; XII-374b
 demotic writing, hieroglyphic, IV-187a
 demy, paper size, IV-54b
 denarius, coin, VII-122b

Denbigh, co., Wales, III-471a
 Denmark III-124a; map III-160; *see also* Danish territories
 Density, of substances, III-125a; of water, VIII-48b
 dentine, substance forming teeth, II-424a
 Dentistry XI-97a
 Denudation, of earth's surface, III-125b
 Denver sluice, of river Ouse, VIII-159b, 160a
 département, French administrative district, X-253a
 Department Stores VII-157a; internal communications, VII-313b; mail-order trading, VII-275b; organization, chart, VII-70
 deposit account, banking, VII-27b
 deposit societies X-171a
 depot ship X-298b
 Depreciation, of property VII-158a
 depressed areas X-132b
 depression, climate, III-479b
 depression, economic, VII-439b; in cotton trade, VII-139a
 Deptford, London, dockyard, VII-172b
 De Quincey, Thomas (1785-1859), English writer, V-133a
 Derain, André (1880-), French painter, *illus.* XII-266
 Derbyshire III-156a; in county cricket, IX-158b; mining, VII-298a
 'Derbyshire neck', gland disorder, XI-139a
 Derby Stakes, horse-race, IX-180b
 Derelicts, ships, IV-121a
 De Rerum Natura (Concerning the Nature of Things), Lucretius, V-158a
 dermatitis, skin disease, XI-3b, 67b; precautions in industry, VIII-379b
 dermis, skin, II-193a
 derrick cranes VIII-101a, 99a
 Derris, insecticide, VI-248b
 De Ruyter, Michael Adrianzoon (1607-76), Dutch admiral, V-133b
 Dervishes, monks, Moslem religion, I-142a
 Derzhavin, Gavril (1743-1816), Russian poet, XII-395b
 Descartes, René (1596-1650), French philosopher, V-134a
 desert devils, sand clouds, III-130a
 Deserted Village, *The*, poem by Oliver Goldsmith, V-196a
 desert melon (naras) II-119b
 Desert Plants II-119a
 Deserts III-128b; Colorado, III-102a; Gobi, III-295a; Sahara, III-388a, *illus.* III-129; mirage, III-292a
 Desert Travel IV-121b
 desert varnish, of certain rocks, III-126b
 Design XII-99b; in industrial art, XII-209b; in modern architecture, XII-263a; modern furniture, XI-196a; ornament, XII-319b
 'Design and Industries Association' XI-197a
 Destroyer X-131b; *illus.* X-383
 detective X-82b
 Detective Stories XII-102a

detergents XI-67a
 detonation, of explosives, VIII-156b
 detonator, of fuze, VIII-175b
 Detroit, Michigan, U.S.A., III-453a; map III-451
 deus ex machina, device of Greek theatre, IX-461b
 deuterium, hydrogen, III-38a
 deuterium, atom of hydrogen, III-38a; VIII-209a
 Deuteronomy, book of the Bible, I-69a
 devatas, godlings, Hindu religion, I-28a
 developer, in photography, VIII-325a
 Development Areas X-132b
 devil I-428b
 devil, Tasmanian, mammal, II-261b
 devil-fish (manta) II-385b
 Devil's Island, French Guiana, X-461a
 Devon, co., III-157a; china clay mining, VII-103a; copper mining, VII-298a
 Devon cattle, *illus.* VI, opp. p. 80; North Devons, VI-78b, 133b; South Devons, VI-79a
 Devon County Show VI-14a
 Devonian age, table, III-139
 Devonport, Devon, X-382a
 Dew III-130b; 'dew' caused by root pressure, II-355a
 Dewar, Sir James (1842-1923), British scientist, VIII-258b
 dewberry, wild rose, II-357a
 De Wet, Christiaan (1854-1922), South African leader, V-417b
 Dewey (decimal) system, library classification, IV-91a
 De Wint, Peter (1784-1849), English painter, XII-473b
 dew-point, of air-temperature, III-130b
 dew-ponds III-131a
 Dewsbury, Yorks., wool industry, VII-486a
 Dexter cattle VI-79a; *illus.* VI-77
 dextrin, gum, VII-218b
 D.F.C. (Distinguished Flying Cross) X-262a; *illus.* X-261
 DH 4, aircraft, X-56b
 dhole, wild dog, II-121b
 dhoti, cloth, VII-142b
 Dhaw, sailing vessel, IV-123a
 dhyal bird II-353b
 Diabetes XI-99a
 Diaghileff, Serge (1872-1929), founder of modern Russian ballet, V-135a; IX-48b
 Dialects IV-124a
 Diamond III-131a; *illus.* III, opp. p. 288
 Diamond Industry VII-158b
 diamond snake II-52a
 Diana, Roman goddess, Index p. 139a; *see also* Artemis
 Diana of the Ephesians, goddess, Index p. 125b
 Diana monkey II-275a
 diaper, ornament, *illus.* XII-320
 diaphragm XI-382a
 Diaries XII-103b; Pepys's, V-357a; XII-103b-105a
 diastase, fermenting agent, II-141b
 diathermy, heat treatment, XI-357a; VIII-139b
 diatoms, microscopic sea plants, III-327a

- Diaz, Bartholomew (d. 1500), Portuguese navigator and explorer, V-117b
 Diaz, Porfirio (1830-1915), Mexican dictator, I-312b
 Diaz del Castille, Bernal (c. 1498-c. 1580), Spanish writer, XII-433b
 Dice IX-181b
 Dickens, Charles John Huffam (1812-70), English novelist, V-135b; IV-129b
 dicotyledon, class of plants, II-89a, 379a
 dictionary IV-356b
Dictionary of the English Language, Dr. Johnson, V-248b
Dictionary of National Biography IV-358b; XII-44b
 Diderot, Denis (1713-84), editor of the French *Encyclopédie*, V-138a
 Didinga, tribe, of E. Africa, initiation ceremonies, I-253b
 Dido, Queen of Carthage, Index p. 139a
Dido and Aeneas, opera by Purcell, V-375a
 Didymus (Thomas the Apostle), Index p. 131b
 die (dice) IX-181b
 die, seal, IV-395a
 die-casting VIII-64b, 167b; pressure, VIII-66a; die-sinking, engraving, XII-251b
 diesel engine VIII-231b, 154a; road vehicles, IV-373b; ships, VIII-267b; IV-275b, 134a
 Diesel Locomotive IV-125a
 diesel oil VIII-173b
 diet XI-184a, 335a; vitamins, XI-475b
 dietetics XI-108a
 Diet of Worms (1521), assembly of German parliament, V-85b
 differential calculus VIII-55b
 diffraction grating, for wavelength measurements, VIII-402b
 diffraction of light and sound waves, III-476a
 digestive system, animal, II-294a; work of Pavlov, V-354a
 Digestive System, human, XI-100a
 digit, measure, IV-262a
 digital calculating machine VIII-52a
 dilatometer, volume measuring apparatus, VIII-156a
 Dimbovitza, river, Roumania, III-60b
 Dinaric Mts., Albania, III-7b; Yugoslavia, III-494a, 495a
 Dingaan, 19th-cent. Zulu chief, I-442a
 dinghy, boat, IX-183a, 421b
 Dinghy Racing IX-183a
 dingo, wild dog of Australia, II-121a; *illus.* II-122
 Dinka, people of N.E. Africa, I-338b
 dinosaur, prehistoric animal, III-352b
 Diocletian (A.D. 245-313), Roman emperor, V-138b
 diode valves VIII-446b, 447a
 Diogenes (c. 412-323 B.C.), Greek philosopher, V-139a
 Dionysus, Greek god, I-201a; Index p. 139a; theatre of, Athens, III-33b
 diphtheria, infectious disease, XI-250a
 diplodocus, prehistoric animal, II-348b
 diplomatic bag X-163b
 diplomatic service, *see* Foreign Office
 dip-net, fishing, VI-160b; *illus.* VI-161
 Dipper (water-ouzel), bird, II-120a
 dipsacaceae, plant family, Index p. 67
 diptych, panels, XII-9b
 diptychs, consular, XII-221b
 direct current (D.C.), electricity, VIII-129b, 9a; generator, VIII-131b
 directional gyro, aircraft instrument, IV-5a
 Directorate, government, French Revolution, X-169b
 dirk dance IX-239a
 Dirt Track Racing IX-185a
 disabled persons X-368a
 disablement benefit X-318b
 Disappointment River (Mackenzie R., Canada) III-267a; *map* III-69
Disasters of War, etchings by Goya, V-198a
 Discobolos, Greek sculpture, XII-183b
 discount, on bills of exchange, VII-44a, 301b; on payments, VII-148a
Discours de la Méthode, Descartes, V-134b
 discovery, *see* exploration
 Discovery, Age of, I-402a
 Discovery I, exploration ship, IV-126b
 discus throwing IX-36b, 33b
 disease: human, XI-302b; animal, VI-18b; plant, VI-325b
 dishes, table, XI-434a
 disinfectants XI-7b
 dislocations, joint, XI-32b, 169a
 Disney, Walt, cartoons, IX-217a
 dispatch-rider IV-267b
 displaced persons X-363b
 displacement of water VIII-48b
 Disraeli, Benjamin, Earl of Beaconsfield (1804-81), British statesman, V-139b
 Dissenters (those who left Church of England in 16th-18th cent.), I-64a, 129a, 307b
 distemper, disease of dogs, VI-21a
 Distemping IX-102b
 Distillation VII-160b; industrial alcohol, VII-236a; oils, VII-317a, 320b
 Distinguished Flying Cross (D.F.C.) X-262a; *illus.* X-261
 Distinguished Service Cross (D.S.C.) X-262a; *illus.* X-261
 Distinguished Service Order (D.S.O.) X-262a; *illus.* X-261
 distress of property X-345b
 distress signals, at sea, IV-416b
 distribution maps IV-254a
 Distribution of Industry Act (1945), X-133a
 distributor, farm machine, VI-120a
 district heating VIII-201a
 ditches: as boundaries, VI-56b; for drainage, VI-118b; ditching VI-228a
 dithyramb, Greek choral hymn, XII-186a
 dive bombing X-17a
 Diver, bird, II-120b; *illus.* II-45
 Divers and Diving Apparatus IV-127a
 divertimento, music, XII-446b
 Dividend VII-162b; co-operative societies, VII-128b
 dividers, drawing instrument, VIII-110a
 Divination I-142a; by dreams XI-115b
 Divine Comedy, The, by Dante, XII-105b, 134a; V-120b
 divine right of kings X-313b
 Diving IX-186b
 diving bells IV-128b
 diving ducks II-125b
 Division, army, X-41b
 division, mathematics, VIII-13a
 division, parliamentary, X-194b
 division, plant propagation, VI-342b
 Divisional Court X-30b, 184a
 divisionism, *see* pointillism
 Division of Labour VII-163a; domestic system, VII-164b; effect of Industrial Revolution, VII-239a
 divorce, as social problem, XI-163a
 Divorce Law X-133b
 diwarra, shell money, VII-356b
 Dixie-land, jazz, XII-228b
 Djibouti (Jibuti), port, French Somaliland, E. Africa, III-408b; *map* III-5
 Dnieper, river, Ukraine, U.S.S.R., III-449b
 Dniester, river, U.S.S.R., III-294b; *map* III-54
 DNOC, weed-killer, VI-481b
 Dobrudja (Dobrogea), province, Roumania, III-384a, 122a; *map* III-121
 dock, plant, II-166b, 324a; VI-482a; family, Index p. 70
 docks, ports, and harbours, IV-321b, 322b
 Docks, ship repair, IV-128b; VIII-109a
 Docks and Harbour Construction VIII-106a; cofferdam, VIII-83b
 Docks and Inland Waterways Executive IV-83a, 38b
 dockyards, *see* docks; shipbuilding
 doctor XI-302b; surgeon, XI-428b, 425b
 Dr. Barnardo's Homes V-32b
Dr. Faustus, tragedy, Marlowe, V-296a
 documentary films IX-219b
 dodder, parasitic plant, II-308b; Index p. 66
 Dodecanese, *Is.*, Aegean Sea, III-132a
 dodo, bird, now extinct, II-321b
 Dog, wild, II-120b; *see also* dogs
 Doge, Venetian ruler, X-88a; palace, III-463b; *illus.* III, opp. p. 464
 dog-fish II-385a, 353b
 Dogger Bank, VI-117a; III-153b
 Doggett's Coat and Badge, boat-race, IX-74a
 dog racing IX-266b
 dog-rose, plant, II-357b
 Dogs, domestic, IX-188a; breeding, IX-197a; senses, II-381a
 dogs: as draught animals, IV-43a, 44a; performing, IX-368b; sheep dogs, VI-407b
 Dogs, Breeds of, IX-190b
 Dogs, Care and Management, IX-195a
 Dogs, Training of, IX-199a
 Dog Shows IX-198b
 dog's mercury, plant, Index p. 70
 Dog-star (Sirius) III-109b
 dog-tooth spar, calcite, mineral, III-291a
 dogwood, shrub, VI-166a
 Doldrums, equatorial winds, III-489a
 dole, unemployment benefit, X-469b
 dolomite, rock, III-376b
 Dolls I-103b; IX-468a
Doll's House, A, Henrik Ibsen, V-236b

Dolls' Houses XI-106a; IX-469a
 dolmen, prehistoric tombs, I-303a
 Dolmetsch, Arnold (1858-1940), musician and instrument maker, IX-400b
 dolomite, limestone, III-261b; VIII-161a
 Dolomites, *Mts.*, in Italy, II-4b
 dolphin, whale, II-467b; VI-483b
 Dolphin Ridge, Atlantic Ocean, III-321b, 110b
 Domagk, Paul, discoverer of prontosil, 1935, XI-126b
Domby and Son, Charles Dickens, V-138a
 Dome XII-106b, 400b-401a
 Domesday Book X-134b; VI-305b
 Domestic Science Training XI-107a
 Domestic Service, History of, XI-108b
 Domestic System, of industry, VII-164b; hosiery industry, VII-227b
 Dominic, St. (1170-1221), founder of Dominican order, V-141a
 Dominica, *I.*, West Indies, III-484b, 486a; I-488a
 Dominicans, friars, I-187a; V-141b; *illus.* I-188
 dominion, of British Commonwealth, X-101b, 431b
 Dominoes IX-200b
 Domitian, Roman Emperor (A.D. 81-96), XI-347b
 Don, river, U.S.S.R., III-458b; *map* III-54
 Donahoe, John, 19th-cent. bush-ranger, X-65a
 Donatello (1386-1466), Italian sculptor, V-141b; XII-215a; *illus.* XII-442; I-400
Don Carlos, Schiller, V-403a
 Doncaster racecourse IX-292a
 Donegal, *co.*, Republic of Ireland, I-258b; III-236b
Don Giovanni, opera by Mozart, V-324b
 Donizetti, Gaetano (1797-1848), Italian composer, XII-311b
Don Juan, satire by Lord Byron, V-66b
 donkey, wild, II-25b
 donkey-pump IV-58a
 Donkeys and Mules, domestic, VI-117b; IV-42a
 Donne, John (1573-1631), English poet, V-142b; XII-257b; preaching, XII-413b
 Don Pacifico dispute (1850) V-347a
Don Quixote de la Mancha, by Cervantes, V-79a; XII-404b
 Donskoi, Dimitri, 14th-cent. Russian prince, I-467b
 Doors XI-112b
 Doppler Effect, wave motion, III-477a
 Dorado, El (the Golden One), legendary king, I-237b; V-380b
 dorado, fish, II-83b
 dor beetle II-82a
 Dorcas (Tabitha) of Joppa, New Testament, Index p. 125b
 Doré, Gustave (1832-83), engraver, *illus.* X-414
 Dorians, of ancient Greece, I-204a
 Doric, Greek, dialect, IV-178a
 Doric order of architecture XII-316b, 3b

Dormouse, II-122a; *illus.* II-208
Dornier, aircraft, X-50b
 Dorothy, St., Index p. 134b
 Dortmund-Ems-Weser canal, Germany, IV-80a
 Dostoevsky, Fyodor Mikhailovich (1821-81), Russian novelist, V-143a; XII-301a
 Douai version of Bible XII-459b
 double bass, string instrument, IX-451a; in orchestra, IX-351b-352b
 double-bassoon, wind instrument, IX-488b
 double canoe IV-85a
 double-entry book-keeping VII-48a
Double Mamba, aircraft, X-17b
 doubling, in cotton industry, VII-141a
 Doughty, Charles Montagu (1843-1926), traveller and poet, V-144a
Douglas DC2, aircraft, IX-10b
 Douglas fir, tree, VI-458b; timber, *illus.* VII-402
 dourocoli (nipple ape) II-275a
 dove, bird, II-321a
 Dover, Kent, *port*, IV-323b
 Dover Road IV-129b
 dovetail joint, carpentry, *illus.* VII-83
 Dowland, John (1563-1626), English composer, IX-311b
 down feathers VI-147a
 Downing Street, London, X-266a
 downs, grassland, VI-212b; English, III-157a
 Doyle, Sir Arthur Conan (1859-1930), writer of detective fiction, V-144b; XII-102b; I-455a
 Doyle, Richard (1824-1883), caricaturist, IV-197b, 248a
 'drag', on aircraft, IV-152b; in high-altitude flight, IV-188a
 Drag Hunting IX-201a
 dragline, earth-moving machine, VIII-119a, b
 Dragon I-144b
 Dragonfly II-122b; larva, II-283a
 dragon's blood, natural resin, VII-219a
 dragon's blood tree II-157a
 dragoon, cavalry, X-75a; *illus.* X-73
 Drainage X-135a; household plumbing, XI-232b, 393a; sewage disposal, VIII-384a
 Drainage, Land, VI-118a; VIII-245a; drainage canals, IV-79b
 drainage, of mines, VII-133a
 Drake, Sir Francis (c. 1540-96), British sailor and navigator, V-145b
 drake, water fowl, II-124b; VI-121a
 Drakensberg *mts.*, Transvaal, S. Africa, III-412a
 Drama XII-107b; Greek, XII-185b; Shakespearian, XII-414a; *see also* acting, history of; theatre, history of
 drama festivals IX-340b
 Drama League IX-201a
 drama programmes of B.B.C. IX-100b
 dramatic training IX-4b
 Drapers' Company VII-106b
 draught, of ship, VIII-308b
 draughting machine, drawing, VIII-111a
 Draughts, board game, IX-201b
 Dravidian, S. Indian language, IV-200a
 drawbridge IV-63a

draw frame, machine, cotton industry, VII-140b; *illus.* VII-139
 Drawing XII-111a; pastel, XII-332b; perspective, XII-341a
 drawing, engineering, VIII-147b
 Drawing, Reproduction of, VIII-111a
 Drawing Instruments VIII-109b
 drawn work, embroidery, XI-322b
 dray horses *illus.* IX-289a
Dreadnought, battleship, X-52b
Dream of Gerontius, oratorio, Elgar, V-153a; XII-314a
Dream of John Ball, William Morris, V-323a
Dream of the Rood, The, Anglo-Saxon poem, XII-131a
 Dreams XI-114b
 Dredger IV-130a
 Dreiser, Theodore (1871-), American novelist, XII-16b
 Dresden, E. Germany, III-133a; *map* III-186
 Dresden porcelain XII-378b
 dress XI-68b, 86b; children's, XI-57b; oriental, XI-339b; primitive, XI-367a
 Dress Design XI-116a
 Dress Fastenings XI-118a
 dressing machine, seed, VI-43a
 Dressmaking XI-121a; paper patterns, XI-117b
 dress shows XI-116a
 drey (squirrel's nest) II-404b
 dried fruit VII-216b
 drift, rock, III-379a
 drift mine VIII-299a; VII-296b
 drill, baboon, II-28a
 drilling, metal, VIII-163b
 drilling, rock, VIII-302a
 Drilling and Boring Machines VIII-112a, 240a; in stone quarrying, VII-416b
 Drills and Distributors, for seed planting, VI-119b
 drinker moth II-236a
 driver ant II-20b
 driving tests IV-372b
 dromedary, camel, II-70a; IV-41b
 drone, male bee, II-35b
 drone, of bagpipe, IX-45a
 Drongo (king crow) II-124a
 drowning XI-168a
 Drugs XI-124b; VII-285b; homeopathic use, XI-224b
 Druids, Celtic priests, I-99b
 Druids' Circle, National Trust property, IX-345a
 Druj, evil spirit, Persian religion, I-429a
 drum, percussion instrument, IX-366a; in bands, IX-317b, 171a; in primitive music XII-365a
 drumlins, formed by glaciation, III-191b; *illus.* III-192
 drum signals IV-415b
 drunkenness X-449a
 drupe, type of fruit, II-169a
 Druzes, Moslem community of Syria, I-464b
 Dryads, nymphs, Greek mythol., Index p. 139a
 dryad's saddle, fungus, II-172b
 Dry-cleaning VII-166b
 Dryden, John (1631-1700), English

- poet, V-147a; XII-33a; *All for Love*, XII-373b; dramatic theory, XII-244b
 dry dock IV-128b; VIII-109a
 dry ice VII-236a; VI-256a
 drying, food, XI-181a
 drypoint, printing method, XII-138b
 dry-rot XI-191b
 drystone walls VI-230a
 D.S.C. (Distinguished Service Cross) X-262a; *illus.* X-261
 D.S.O. (Distinguished Service Order) X-262a; *illus.* X-261
 dual carriageways, of roads, IV-370b
 dualism, philosophy of Persian origin, I-355b, 495b
 Du Barry, Jeanne Bécu, Comtesse (1743-93), XI-312b
 dubbín, grease, VII-151b
 Dublin, Republic of Ireland, III-133b; *map* III-236
 Dubrovnik, Yugoslavia, I-492b; *map* III-160
 ducat, coin, VII-123a
 Duccio (c. 1260-c. 1320), Sienese painter, XII-419b; *illus.* XII-420
 Duce, II (Mussolini) V-325a
 Duchy of Lancaster, Chancellor of the, X-267b
 duck-billed platypus, egg-laying mammal, II-325a
 duck-hawk (peregrine), bird, II-139a
 ducking stool *illus.* X-356
 Ducks, domestic, VI-120b; for the table, XI-363b
 Ducks, wild, II-124a
 Duck Shooting IX-202b
 ducted fan, aircraft engine, IV-8b
 Duddleston, Birmingham, redevelopment plan, XI-458
 Dudley, Dud, 17th-cent. ironmaster, VIII-236b
 duelling, *see* fencing
 Duff, Alexander (1806-78), Scottish missionary, I-321b
 Dugdale, Sir William (1605-86), historical writer, XII-193a, 103b
 dugong, sea-cow, II-368b, 369a
 dug-out canoe IV-332a, 84b
 Duisburg, port, Rhine, Germany, III-368b
 Dukas, Paul (1865-1935), French composer, XII-366b
 duke X-316b
 Duke, James, American tobacco manufacturer, VII-437b
 Duke of Burgundy Fritillary, butterfly, II-126b
 DUKW, landing craft, X-298b
 Dumas, Alexandre (1802-70), French novelist, V-148a
 Du Maurier, Sir Gerald (1873-1934), English actor and producer, IX-9a
 'dumb' boats, barges, IV-38a, 466b
 dumb crambo, game, IX-121b
 Dunbar, William (c. 1465-1530), Scottish poet, XII-8b
 Duncan, Isadora (1878-1927), American dancer, IX-48b, 265a
 dunce's cap XI-155a
Dunclad, poem, Alexander Pope, V-369a, 148a
 Dundee, Scotland, III-398b; *map* III-396; jute industry, VII-256b
 dunes, sand hills, III-130a
 dung VI-277a, 279a; distribution of, VI-120a
 Dunkirk evacuation, Second World War, X-403b
 dunlin, bird, II-452a; migration, II-266b
 Dunlop, John B. (1840-1921), inventor, IV-46a
 'Dunmow Flitch', Whit-Monday contest, IX-472b
 dunnock (hedge-sparrow) II-427b
 Duns Scotius, John (c. 1270-1308), Scottish philosopher, V-148b
 Dunstan, St., Index p. 134b
 Dunwich, Suffolk, 'nomination borough', in parliamentary history, X-145b
 duodenum, intestine, XI-101b
 duralumin, alloy, VIII-7a
 Durazzo, Albania, III-8b; *illus.* III-160
 Durban, port, S. Africa, I-444a
 Dürer, Albrecht (1471-1528), German artist, V-148b; XII-17a; etchings, XII-139b; woodcut, *illus.* IV-196b
 Durham, co., England, III-155b; Bishop of, X-114a; cricket, IX-159b
 Durham, John George Lambton, 1st Earl of (1792-1840), British statesman, X-62b
 Durham cathedral XII-385a, 80a
Durham Report, The (1839), V-465b
 Durham University X-346b
 durian, tropical fruit, VI-464a
 Durrow, book of, illuminated manuscript, XII-254a
 dustmen, *see* refuse disposal
 dusty miller (*cineraria maritima*), plant, VI-47a
 Dutch I-146b; *see also* Holland
 Dutch architecture, of 17th cent., XII-117a
 Dutch Art XII-114a; genre painting, XII-166b; landscape painting, XII-236b, 115b; still-life painting, XII-439a
 Dutch (Netherlands) East Indies I-251b; X-104a; *see also* East Indies; Indonesians
 Dutch elm disease VI-455a
 Dutch gardens VI-195b
 Dutch Guiana, S. America, III-207a; *map* III-415; peoples, I-487b
 Dutch Naval Wars (1652-74) X-396a; VII-391b; V-133b
 Dutch West Indies III-484b; peoples, I-487b
 duties, *see* customs and excise
 Dvina, river, U.S.S.R., III-458b; North Dvina, III-18a
 Dvořák, Antonín Leopold (1841-1904), Slav composer, V-150b
 Dwarfs I-148b; elves, I-162b
 Dyck, *see* Van Dyck
 Dyeing XI-127a
 dye-line, drawing reproduction process, VIII-111b
 Dyes VII-167b; carpet dyes, VII-84b
 fur dyeing, VII-200a; natural dyes, XI-127b; wool dyeing, VII-492a
 dyke, rock formation, III-376b
 dykes, *see* land reclamation
 dykes, ancient land boundaries, I-151a
 dynamics VIII-280a
 dynamism, primitive religion, I-28b
 dynamo VIII-132a, 120b-121b
 Dynamometer VIII-115a
Dynasts, epic-drama, Thomas Hardy, V-210b
 dyne, unit of measurement, VIII-273a
 Dyr, 5th-cent. Scandinavian knight, III-250b
 dysentery, disease, XI-461b; II-334b; in animals, VI-18b
 Ea, Babylonian god, I-459a
 Eagle II-127a; falconry, IX-211a
 eagle dance IX-232a
 'eagre', the, tidal wave, river Trent, III-441a
 Eakins, Thomas (1844-1916), American painter, XII-11b
 Eakring, Notts., oilfields, VII-320a
 ear, *see* ear structure
 earl X-316b
 Earl Marshal X-113b
 Early Christian Art XII-118a; illuminated manuscripts, XII-199b; mosaics, XII-280a; *see also* Byzantine art
 Early English, style of architecture, XII-80b
 Ear Structure: human, XI-128a; animal, II-382b
 Earth III-135a; as planet, III-340a; denudation, III-125b; measurement, III-30b; mountain building, III-305b; rock formation, III-374a; *see also* soil
 Earth, History of, III-138a, 23a
 earth-closet XI-395a
 Earthenware VII-170; XII-355a
 Earth-moving Equipment VIII-117a
 earth-pig (aard-vark) II-1a
 earthquake bombs X-58a
 Earthquakes III-140a; Assam earthquake, VI-128b
 Earthworks and Hill-forts I-150a; X-164a; land boundaries, VI-56a
 Earthworms VI-122a; II-479b
 ear trumpet II-409b
 Earwig, insect, II-128a; VI-251a
 East Africa III-142a; *maps* I-152; III-5; soil erosion, III-407b
 East Africans I-151b
 Easter, Christian festival, I-123a, 177a; Easter eggs, IX-473a
 Easter I., Pacific Ocean, III-86a; I-370b; *map* III-323; art of, XII-307a
 Eastern Church, Orthodox, I-348a
 Eastern music, *see* Oriental music
 East India Company VII-170b; tea trade, VII-428a; Fort St. George, *illus.* X-104
 East Indies (Indonesia) III-143a, 21a; history, I-251a; languages, IV-201a; people, I-250a, 393a
 Eastland trading company VII-94b
 East London, port, S. Africa, III-413a
 East Syrian (Nestorian) Church I-340a
 Ebbw Valley, S. Wales, III-470b
 E-boat X-298a
 Ebro, river, N.E. Spain, III-419a; *map* III-160
 E.C.A. (Economic Co-operation Administration) X-260b

Ecclesiastes, book of the Bible, I-70a
ecclesiastical commissioners, *see* Church
commissioners
ecclesiastical court, *see* Canon law
*Ecclesiastical History of the English
Nation*, The, Bede, V-35b
Echidna, egg-laying mammal, II-128b
Echo, nymph, Greek mythol., Index p.
139a
echo III-409b; VIII-2a; of radio waves,
VIII-347a
echo-sounding, navigation, IV-94a;
apparatus, VIII-221b, 468b
Eckford, Henry, 19th-cent. botanist,
VI-436b
Eclipse, of sun and moon, &c., III-
146a
Eclipse Stakes, horse-race, IX-292a
eclogue, pastoral poem, XII-334b
Eclologies, Virgil, V-461a
Ecology of Plants II-129a
Economic Consequences of the Peace,
J. W. Keynes, V-259a
Economic Co-operation Administra-
tion X-260b
Economics VII-173a; labour, VII-259a;
trade, VII-180a; trade cycle, VII-
439b; value and price, VII-462a
Ecuador, republic, South America,
III-147a; *map* III-415
Ecuador, People of, I-154a
eczema, skin disease, XI-3b
Eddy, Mrs. Mary Baker (1821-1910),
founder of Christian Science, I-121a
Eddystone lighthouse IV-231a
edelweiss, alpine plant, II-4b; VI-114a
Edging Plants VI-123a
Edict of Nantes (1598) V-222a; revoca-
tion of (1685), V-283b; VII-268b
Edinburgh, Scotland, III-148b; *map*
III-396; Castle Rock, III-192a;
'lands', XI-172b; university, X-389b
Edinburgh Festival IX-341a
Edinburgh Review XII-336b; V-287a
Edison, Thomas Alva (1847-1931),
American inventor, V-151a; VIII-
122a; IX-262a
editors, newspaper, IV-300b, 305a,
297b
Edomites, ancient Semitic peoples,
I-217b
Edouart, Augustin (1789-1861), French
silhouette artist, XII-422a
education: American, X-22a; colonial,
X-99b; Scottish, X-389b; Welsh, X-
491a
Education, History of, X-137a; City
Company Schools, VII-106b; medi-
eval apprenticeship, VII-143a; Sun-
day Schools, X-437a; teachers,
X-445b
Education, Modern (Britain), X-140b;
adult, X-4b; co-education, X-99a;
examination system, X-148b, 210a;
upbringing of children, XI-61a
Education Acts: (1870) X-139b, 141a;
(1944) X-142b
Edward I (1239-1307), King of England,
V-151a; wool tax, VII-291b
Edward III, King of England (1327-77),
X-200a; VII-481b
Edward VI, King of England (1547-53),
I-124b

Edward the Confessor, King of Eng-
land (1042-66), V-485a; I-368b
Edward, Prince of Wales (1330-76),
see Black Prince
Edwards, Sydenham (1769?-1817),
naturalist, IX-190b
Eel, fish, II-130b, 276b; electric, II-
134a; mud eel (siren), II-359b,
Eel Fishing VI-123b
Eelworms, plant pests, VI-124a
effigy, tomb carving, XII-451a-453a
eft (old name for newt) II-290a
Egadi Is., W. Sicily, III-403b
egg: bird's, II-46a, VI-427a, 356a-360b;
Easter egg, IX-473a; reproductive
cell of animal, II-344b, 346a
eggjar moth II-235b
egg-collecting IX-69b
Egg Dishes XI-129a
egg-laying trials VI-357b
Egg-Plant (aubergine) VI-126a
egg preserving XI-130b
Egg Trade VII-175a; VI-284b
egg-urchin, sea animal, II-377b
egplantine (sweet-briar), plant, II-358a
Egypt III-149b; *map* III-5; water
supply, VIII-15a
Egyptian Art XII-121b, 439b, 477a
Egyptian (Coptic) Church I-130a
Egyptian Civilization I-154b; death
ceremonies, I-139a-140a; gardens,
VI-192b; literature, I-158a;
measures, IV-262a; numerals, IV-
113a; papyrus, IV-309a; Pharaoh,
I-384b; Pyramids, XII-370a, 122b;
religion, I-214b, 197b, 429a; sacred
beetles, II-365a; sacred cats, IX-117a;
sacred writings, I-419b; ships, IV-
98b; sphinx, XII-434a; temples, I-
470a; Tutankhamen's tomb, XII-
461a; writing, IV-186a; I-157a
Egyptian Myths I-158b
Egyptians I-160b
Ehrlich, Paul (1854-1915), German
medical scientist, XI-126b
eider duck, bird, II-125b; VI-147a
Eifel Hills, W. Germany, III-186a,
467b
Eiffel Tower, Paris, XII-126b
Eighth Army, in Second World War,
X-144a
Eights week, Oxford boat racing, IX-
75a
Einstein, Albert (1879-1955), mathe-
matician and physicist, V-152a;
Quantum theory, III-356b; relativity
theory, III-366a
Eire, *see* Ireland, Republic of; Irish
Eisenhower, Dwight D. (1890-),
American soldier and statesman,
I-16a
Eisenstein, Sergei Mikhailovich (1898-
1948), Russian film director, IX-130a
Eisteddfod, annual Welsh festival, IX-
341b
El, Phoenician god, I-364b
El Alamein, Battle of (1942), X-143b
eland, antelope, II-18a
Elan Valley, Breck, Wales, III-470b
elasticity VIII-144b; of metals, VIII-
286b
'elastic limit', of materials, VIII-144b,
417b

Elba, I., Italy, V-330a
Elbe, river, Germany, III-184b, 211b;
map III-186
Elbruz, mt., Caucasus, U.S.S.R., III-
76a; *map* III-75
Elburz, mts., N. Persia, III-336b, 433a;
map III-17
elders, in Presbyterian Church, I-91b
El Dorado (the Golden One), legendary
king, I-237b; V-380b
Eleanor of Castile, wife of Edward I,
illus. V-151
election, local government, X-243a
Election, Parliamentary, X-144b; poll-
ing station, *illus.* X-129b; propor-
tional representation, X-346a
election, political, in France, X-167b;
in U.S.A., X-21a
Electra, character in Greek mythol.,
Index p. 139a
electrical appliances, wiring and cur-
rent, XI-132b
electrical energy VIII-143a
Electrical Engineering VIII-119b
Electrical Engineering, History of, VIII-
120a
Electrical Instruments VIII-123b
electrical insulation VIII-127a; asbestos
for, VII-20b; mica, VII-294a; of
cables, VIII-50b
electric battery VIII-19b
electric blanket XI-21a
electric cable VIII-50a
electric chair X-72b
electric circuit VIII-127a; interference,
VIII-207a
electric clock VIII-455b
Electric Current VIII-126b, 120a; high-
frequency current, VIII-204b; mea-
surement of, VIII-273a, 123b; power
stations, VIII-328b; rectifier, VIII-
368b; storage, VIII-192a, 92b; switch
gear, VIII-430b; transmission, VIII-
191a
electric discharge lamp VIII-224b
electric eel II-134a
Electric Fishes II-133b
Electric Generators VIII-130a; early
machines, VIII-120b
electric induction VIII-226a
electric iron VIII-451b
electricity, *see* electrical engineering;
electric current; electricity in nature
Electricity, Domestic, XI-130b; fuses,
VIII-127b; switch-gear, VIII-430b;
XI-132b; wiring, XI-131b
electricity consumption VIII-191a
electricity meter VIII-126a
Electricity and Magnetism, Clerk Max-
well, V-302b
Electricity in Nature III-151a
electric lighting VIII-224a, 121b; bulbs,
VII-207a, 345b; series and parallel
connexions, VIII-128a; switches,
VIII-431a; *see also* street lighting
electric locomotives IV-132b
Electric Motors VIII-133a, 123b;
brakes, VIII-36b; farm machinery,
VI-363b
electric organ, musical instrument, IX-
337a
Electric Railways IV-132a; construc-
tion, VIII-364a; 'dead man's handle'

- VIII-432b; rolling stock, VIII-366b; underground trains, IV-473a
 electric ray (torpedo), fish, II-133b, 385b
 electric road vehicles IV-374a
 Electric Ship IV-134a; VIII-268b
 electric shock XI-131b; treatment in mental illness, XI-311a
 Electric Signalling, Railway, IV-135a, 33b
 electric train, *see* electric railways
 electrode, of cathode ray tube, VIII-66b; of thermionic valve, VIII-446a, b
 electrolysis, of water, VIII-128b; chlorine production, VII-14a; magnesium production, VII-275a
 electromagnet VIII-265b, 134b; in sound recording, VIII-401a
 electromagnetic induction VIII-226a
 electromotive force (e.m.f.) VIII-129b, 273b
 electron, elementary particle, III-36a, b; VIII-127a, 66b; detection and observation, VIII-353a
 electron gun VIII-66b
 'electronic brain' VIII-52a
 electronic calculators VIII-54b
 Electronics VIII-137a
 Electron Microscope VIII-139b
 electron-volts VIII-209a
 Electroplating VIII-141a
 electrotyping VIII-363a
 elegiac couplet, poetry, XII-127a
 Elegy XII-127a
 elektron, metal alloy, VIII-7a
 elementary particles, of atom, III-35b
 elementary schools X-141a; in U.S.A., X-22b
 elements, basic substances, III-278b; isotopes of, VIII-350a
 Elements, Euclid, V-160a
 elemi, resin, VII-219a
 Elephant II-134b, 138b; as beast of burden, IV-43b; hunting of, IX-66b; longevity of, II-187b; sight, II-382b; use in war, X-74a
 elephant-beetle II-82a
 elephant shrew, mammal, II-218a
 elevator (lift) IV-228b
 elevator, of aircraft tail, IV-4b, 154a
 elevator, harvesting, VI-226b
 Elgar, Sir Edward (1857-1934), English composer, V-153a; *Falstaff*, XII-366b; V-153a, b; *The Dream of Gerontius*, XII-314a
 Elgin Marbles XII-128a
 Elgon, *mt.*, Uganda, E. Africa, III-449a; *map* III-5
 El Greco, *see* Greco, El
 Eli, high priest, Index p. 125b
 Elijah, Hebrew prophet, 9th cent. B.C., I-216b; Index p. 125b
 Elijah, oratorio, by Mendelssohn, V-306b
 Eliot, George (Mary Ann Evans 1819-80), British novelist, V-153b
 Eliot, Thomas Stearns (1888-), poet, XII-271b-272b, 331b, 110b, 337a
 Elisha, Hebrew prophet, Index p. 125b
 Elizabeth I (1533-1603), Queen of England, V-154b; Babington Plot, IV-106a; Navigation Acts, VII-305a; Poor Law, X-332b; postal system, IV-327a; Prayer Book, I-375b; shipbuilding industry, VII-288a; Statute of Apprentices, VII-17b
 Elizabeth, mother of John the Baptist, Index p. 125b
 Elizabethan drama XII-108b, 414a; acting, IX-6a; theatre, IX-462a
 Elizabethan literature XII-131b
 Elizabeth of Bohemia (1596-1662) *illus.* XI-268
 elk (moose), deer, II-118b
 Ellen Austin, sea mystery, IV-121a
 Ellesmere Canal, Salop/Cheshire, V-440a
 Ellesmere I., North-West Territory, Canada, III-346a, 205b
 Ellice Is., Pacific Ocean, III-113a; *map* III-323
 ellipse (planet's course round sun) III-341a
 ellipse, figure, geometry, VIII-189a
 ellipsoid, figure, geometry, VIII-189b
 Ellora rock temples, India, XII-208a; *illus.* XII-207
 Ellsworth, Lincoln (20th cent.), American explorer, V-12a
 elm tree VI-456b; fruit, II-167a; pests, VI-26b; wood, VII-223b
 Elsheimer, Adam (1578-1610), German painter, XII-172a
 Elsinore, Denmark, III-112a
 elver, young eel, II-132b; fishing, VI-123b
 Elves I-162b
 Elysium, abode of dead, ancient Greece, I-215a
 embalming, in ancient Egypt, I-156b; VII-13a
 embankments, river, VIII-165a
 embassy X-163a
 Embden goose VI-199b
 embezzlement X-120a
 Embroidery, English, XI-133a; bed coverings, XI-20a; machine made embroidery, VII-263; *illus.* XI, opp. p. 304
 Embroidery, World, XI-135b
 embryo, of seed, II-378b
 Emerald III-153a; Brazilian, III-445a
 emerald moth II-255a, 279a; camouflage, II-332b
 Emergency Medical Service X-190b
 Emerson, Ralph Waldo (1803-82), American writer, V-156b
 emetics XI-101b
 e.m.f. (electromotive force) VIII-273b, 129b
 emigration IV-401a; *see also* colonies, history of
 Émile, educational tract, Rousseau, V-395a
 Emma, Jane Austen, V-25b, 26a
 Emmanuel (Immanuel), 'God is with us', Index p. 127a
 Emmaus, village between Jerusalem and Jaffa, Index p. 125b
 emotion, in body-mind relationship, XI-314a; in medical psychology, XI-373a; in mental diseases, XI-310b; regulation of, XI-140a
 emperor butterfly II-337a
 'Emperor Concerto' Beethoven, V-37a
 emperor fish II-373b
 Emperor Moth II-136b
 Empire, British, *see* British Commonwealth
 Empire State Building, New York, XII-423a
 empiricism, in philosophy, V-282a
 Employers' Liability insurance VII-246b
 Employment Exchange X-147a; direction of labour, X-269b
 emporium, shop, VII-157a
 emu, flightless bird, II-302b
 Enamel VII-176a
 enamel, of teeth, II-424a
 enamelling XI-346a; surface preparation, VIII-423a
 encaustic, painting method, XII-324a
 Enceladus, giant, Greek mythol., I-194a
 encephalograph (apparatus recording electrical activity of brain) XI-307a
 enclosures, land, VI-307b
 Encyclopaedia, Great, of China, I-112b
 Encyclopaedia Britannica XII-130a
 Encyclopaedias XII-129a
 Encyclopédie, L', French encyclopaedia, XII-130a
 Endeavour, H.M.S., Captain Cook's ship, IV-136b
 endive, plant, VI-396b
 endocarp, of fruit, II-169a
 Endocrine Glands XI-138a
 Endor, witch of, Old Testament, Index p. 125b
 endowment policy, insurance, VII-246b
 Endymion, youth, Greek mythol., Index p. 139a
 Endymion, Keats, V-256b
 Energy VIII-142a, 280a; conservation, VIII-143a; in gases, VIII-176b; measurement, VIII-115a
 energy foods XI-184b
 Enfant, Pierre Charles L', 18th-cent. French architect, XII-10b
 enflourage, oil extraction, perfumery, VII-320b, 336b
 Engadine, British aircraft-carrier, X-6b
 Engels, Friedrich (1820-95), German socialist, V-297a, b
 engine-driver IV-346b
 engineer, ship's, IV-408b
 Engineering VIII-143a
 Engineering Design VIII-144a; prefabrication, VIII-332a
 Engineering Drawing VIII-147a; instruments, VIII-109b; 'tolerances', VIII-149a
 engineering materials VIII-144a
 strength testing, VIII-146a
 engineer's chain VIII-428a
 engine power-testing machine (dynamometer) VIII-115a
 engines: diesel, VIII-231b; rail, IV-125a; road, IV-373b; ship, IV-275b; VIII-267b
 engines, electric motor, VIII-133a; railway, IV-132a; ship, VIII-268b
 engines, gas turbine, VIII-181a; aircraft, IV-8b; rail, IV-167b; road, IV-374b; ship, VIII-268a
 Engines, History of, VIII-150b
 engines, jet, IV-8b
 engines, nuclear power, VIII-268b

engines, petrol, VIII-229a; aircraft, IV-7b; road, IV-373b
 engines, rocket, IV-8b; VIII-376a
 engines, steam, VIII-406b; rail, IV-241a, 239a; ship, IV-404b; VIII-266a
 engines, steam turbine, VIII-409a; ship, IV-405a, 437a; VIII-266b
 Engine-sheds, Railway, IV-137b
 England III-153b; *see also* Great Britain
 Engleheart, George (1750-1829), English miniature painter, XII-260b
 English I-76b
 English architecture, *see* British architecture; *see also* Church architecture, English
 English art, *see* British art
 English church music XII-398a
 English drama XII-108a; acting, IX-5b; comedy, XII-90b; miracle plays, XII-260b; morality plays, XII-278a; Restoration drama, XII-373b; tragedy, XII-457a
 English Folk Dance and Song Society IX-237a
 English gardens VI-196a
 English Language IV-138a, 219a; as an international language, IV-208a, 218b
 English Literature XII-130b; modern poetry, XII-270b
 English Schools Football Association IX-31a
 Engraving VII-177b; XII-138a; German school, XII-171a; gold and silver, VII-210a; illustration, IV-196a; wood-engraving, XII-478a
 engraving machine XII-252b
 'Eniac' (Electronic Numerical Integrator and Computer) VIII-55a
 enigma, riddle, IX-404b
 'Enigma' variations, Elgar, V-153a
 enjambment, in poetry, XII-469b
 Enlil, Babylonian god, I-58b, 62a, b
 Ennius, Quintus (239-169 B.C.), Roman poet, XII-134a
 Enoch, apocryphal book, Index p. 125b
 Ensign, ship's flag, IV-150a, 151a; Red Ensign, IV-266a
 Entertaining XI-140a
 Entertainment Industry VII-178a
 entrepôt trade VII-322b
 environment: animal, II-188a; human, XI-414b; plant, II-129a
 enzymes, in body cells, II-141b; in digestion, II-294a
Eoanthropus dawsonii, prehistoric man, I-183b
 Eocene age, table III-139
 Épée, Charles, Abbé de l' (1712-89), teacher of deaf and dumb, IV-119a
 épée-fencing IX-211b
 epergne, table ornament, XI-342b; *illus.* XI-376
 ephemerals (short-lived plants) II-156a
 Ephesus, Asia Minor, Index p. 125b
 Ephesus, temple of Artemis, XII-474b
 Ephialtes, giant, Greek mythol., I-194a
 Ephraim, son of Joseph, Old Testament, Index p. 125b
 epicarp, skin of fruit, II-169a
 Epic Poetry XII-133b; Spanish epics, XII-433a

Epictetus (c. A.D. 60-140), Stoic philosopher, V-496a
 Epicurean philosophy V-158a
 Epicurus (c. 342-270 B.C.), Greek philosopher, V-158a
 Epidemic Diseases XI-143a; X-350a
 epidermis, skin, II-193a; of plants, II-410a
 Epigram XII-135a
 Epilepsy XI-145b
 Epiphany, festival of Christian church, I-123a, 175a
 epiphytes, plants, II-300a; III-169b
 Epistles, Horace, V-230b; St. Paul, I-70b; V-353a; Pope, V-369a
 epitaph XII-135a, 127b
 Epping Forest, Essex, XIII-170b
 Epsom Downs, Surrey, racecourse, IX-292a, 180b
 Epsom salts VII-275b
 Epstein, Jacob (b. 1880), sculptor, XII-52b
 equation, algebraic, VIII-6a
 Equator III-135a; crossing (ceremony on board ship), IX-382b
 equerry, official of Royal Household, X-379a
 equinox (time of year when day and night are equal) III-29b
 equitation, *see* riding
 equity, law system, X-233a
 Eraklion (Candia), Crete, III-116b
 Erasmus, Desiderius (c. 1466-1536), religious thinker, V-158b
 Erato, Greek goddess, I-329a
 Eratosthenes, (3rd cent. B.C.), astronomer, III-23b; known world of, *map* Index p. 50
 Erilla y Zúñiga, Alonso de (1533-94), Spanish poet, I-104b
 Erebus, H.M.S., ship, V-170b
 Erech, ancient city of Mesopotamia, I-21a; XII-443b
 Erechtheum, temple, Athens, Greece, XII-3b; *illus.* I-203
 Erewhon, Samuel Butler, V-65b
 ericaceae, plant family, Index p. 66
 Erichsen, Sir John, 19th-cent. surgeon, XI-428b
 Ericsson, Leif, 11th-cent. Viking explorer, V-159b
 Eric the Red, 10th-cent. Viking leader, I-345b
 Eridu, ancient city of Mesopotamia, I-459a
 Erie, lake, Canada/U.S.A., III-201b; *map* III-318
 Eritrea, N.E. Africa, III-157b; *map* III-5
 Erivan, Armenia, U.S.S.R., III-20a; *map* III-75
 Erix, character in Greek mythol., IX-81b
 ermine, fur, VII-200b; VI-189b
 ermine moth II-430a
 Ernst, Max (1891-), German painter, XII-445a
 'Eroica' symphony, Beethoven, V-36b
 Eros, Greek god, I-201a; Index p. 139a
 erosion, soil, III-406b, 127b
 Erse (Irish) language IV-211a
 Erz Gebirge, plateau, E. Germany, III-186b

Esau, son of Isaac, Old Testament, Index p. 126a
 Escalante, Father, 18th-cent. Franciscan friar, III-202b
 escalators IV-230a
 escapement mechanism, of clock, VIII-81a
 escarpment, rock formation, III-375a
 eschalot (shallot), onion, VI-304b
 Escoffier, Auguste (1846-1935), French chef, XI-82a
 Escorial Palace, Madrid, XI-348b; III-269b
 eskers, formed by glaciation, III-192a
 Eskimos I-162b; art, XII-12b; birth ceremonies, I-72b; initiation ceremonies, I-252b; kayak (canoe), IV-83b; language, IV-27a; territories, III-345b, 205b
 espalier, tree-pruning, VI-368a
 esparto grass VI-154a
 Esperanto language IV-208b
 Espinosa, Diego de, 16th-cent. inquisitor-general of Spain, V-362a
 Esquipulas, Black Christ of, Guatemala, I-100b
Essay Concerning Human Understanding, John Locke, V-282a
Essay on Criticism, Alexander Pope, V-368b
Essay of Dramatic Poesy, Dryden, V-148a; XII-244b
Essay on Man, Alexander Pope, V-369a
 Essays XII-136a; in periodicals, XII-336a
Essays in Criticism, Matthew Arnold, V-19a
Essays of Elia, Charles Lamb, V-264b
 essential oils VII-320a; plants, IV-300a, 301b
 Essex, co., cricket, IX-158b, 163b
 Essex, Walter Devereux, 1st Earl of (c. 1541-76), V-380b
 estate, property, X-208a; duties, X-128b
 estate agent VI-17a; VII-10b
 Este, Italian ruling family, I-264a
 Esterházy, ruling family, Austria-Hungary, V-216a, 403b
 Esther, character in O.T., Index p. 126a
 Estonia, republic, U.S.S.R., III-157b; *map* III-459
 Estonians I-164b; language, IV-147a
 Estremadura, province, Portugal, III-350a; pottery, I-374b
 Etana and the Eagle, Babylonian myth, I-63b
 Etching and Engraving, printing methods, XII-138a
 Ethelreda (Audrey), St., IX-206a
 'ether' (supposed substance in universe) III-259a
 ether, anaesthetic, XI-4a
 Etherege, Sir George (c. 1634-c. 1691), English dramatist, XII-374a
 Ethical Movement I-394a
 Ethics, Aristotle, V-17b
 ethics, branch of philosophy, I-361b
 Ethiopia (Abyssinia), E. Africa, III-1a; *map* III-5
 Ethiopians (Abyssinians) I-1a
 Ethiopic language IV-403a

ethyl alcohol VII-235a
ethylene glycol, chemical, VIII-71a
Etiquette XI-146a; social precedence, XI-416a
Etna, volcanic mt., Sicily, III-158b; in Greek mythol., I-194a
Eton College X-351b; boat-races, IX-74b; cricket, IX-163a; Eton and Harrow Match, IX-164a
Eton Football IX-204a
Etruria china works III-156a
Etruscan alphabet IV-24a
Etruscan Art XII-142a; jewellery, VII-254a
Etruscans, early settlers in Italy, I-409a, 263b
eucalyptus tree III-40a; VI-302b
Eucharist, Holy, sacrament of Christian Church, I-417a, 423b
Euclid (4th cent. B.C.), Greek thinker, V-160a
Eudoxus (409-356 B.C.), Greek astronomer, III-23a
Eugene Onegin, Pushkin, V-375b
Eugene, Prince of Savoy (1663-1736), V-295a
Eugénie Grandet, Balzac, V-32b
euphonium, brass instrument, IX-317b
euphorbiaceae, plant family, Index p. 70
Euphrates, river, Iraq, III-234b; map III-17; ancient civilizations of, I-20b
eureka, metal alloy, VIII-128a
Eureka, radar navigation device, IV-293b
Euridice, Greek mythol., Index p. 139b
Euripides (c. 480-406 B.C.), Greek dramatist, V-160b; XII-456b
Europa, character in Greek mythol., I-333b; *illus.* I-334
Europe III-159a; map III-160; population, I-372a
European civilization, origins, I-22a
European mouflon, mammal, VI-403a
European Peasant Costume XI-148b; *illus.* XI, opp. p. 368
Europeans, racial features, I-392a; *illus.* I-391
Eurus, wind, Index p. 139b
Eurytheus, character in Greek mythol., I-207a
eustachian tube, of ear, XI-128a
Euterpe, Greek goddess, I-329a
evacuation X-88b
Evangelical movement, in Church of England, I-125b; Methodist, I-307b
Evangeline, Longfellow, V-282a
Evans, Sir Arthur John (1851-1941), British archaeologist, I-317a; XII-229b
Evans, Edgar (d. 1912), member of Scott's Antarctic expedition, V-405b, 406a
Evans, E. R. (Lord Mountevans), V-406a
Evans, Mary Ann (George Eliot 1819-80), novelist, V-153b
evaporation VIII-406a
Eve, first woman, Index p. 126a
Evelyn, John (1620-1706), diarist, XII-104a
Evening Chronicle V-136b
Evening Institutes X-5b
Evening News VII-306b

Evenki, tribes of Siberia, U.S.S.R., I-438b
Evenlode, river, tributary of Thames, III-436a
Everest, Sir George (1790-1866), Surveyor-General of India, IV-253b
Everest, Mount, III-161a; IX-333a; map III-229
evergreen forests III-169a
evergreen trees II-95a; VI-191a; leaves, II-242a
Everlasting Flowers VI-127a
Everyman, morality play, XII-278b
Every Man in His Humour, comedy by Ben Jonson, V-251b
Eve of St. Agnes, Keats, V-257a
evidence, legal, X-465a; in Scottish law, X-392b
Evidence as to Man's Place in Nature, T. H. Huxley, V-235a
evil, in various religions, I-428b
evil eye, magical power, I-289a
evil magic I-489b, 288a; spells and charms, I-450a; warding off of, I-71b, 139a
Evolution II-137b; V-123b
Evolution of Man I-165a; V-123b
ewe, sheep, VI-403b
Examinations X-148a; civil service, X-96b
Examiner, periodical, V-233b
excavation, *see* archaeology
excavator, mechanical, earth-moving machine, VIII-117b, 119a
excess profits tax X-444b
Exchange and Trade VII-180a; market, VII-279b
Exchange Equalization Account X-125b
exchange, rates of, *see* rates of exchange
Exchequer IV-115a; Chancellor of, X-284b
Exchequer Court X-232a
excise duties VII-427b; X-126a
excretory system, of body, XI-6a, 100a
execution X-71a, 354b
executor, of will, X-208b
Exeter, British cruiser, X-122b
exhaust gases, of engine, VIII-86a
Exhibitions, industrial, VII-183b; Crystal Palace, XII-97a
Exmoor, S.W. England, III-157a; Index p. 84
Exmoor pony IX-289a
Exodus, book of the Bible, I-421a, 68b; X-234b
Expansion and Contraction VIII-154b
exploder VIII-29a
Exploration IV-141b; Antarctic, III-349a; IV-126b; colonies, X-104a; navigation, history of, IV-287a; trade routes, IV-456a; maps of the known world, Index p. 50
Exploration, School, IV-145a
Explosives VIII-156b; ballistics, VIII-19a
exports, British, VII-322b, 249a; bill of lading, VII-42b; mercantile system, VII-287a; shipping, VII-392a; subsidies on, VII-419a
exposure, photography, IX-371b; photographic emulsion, VIII-324b

exposure-meter, of camera, VIII-58a
Expressionist Art XII-143b
Express Letter IV-145b
express trains: Blue train, IV-46b; Cornish Riviera Limited, IV-112a; Flying Scotsman, IV-160a; Golden Arrow, IV-172a; Twentieth Century Limited, IV-471a
extension, stretching, of material, VIII-417a
extensometer, strain-measuring instrument, VIII-417b
extradition, of fugitive criminals, X-305b
'extravert', social type, XI-373b
Extreme Unction, sacrament of Christian Church, I-417b
extrusion, of metals, VIII-168b; *illus.* VIII-284; of plastics, VIII-343b
Eyck, Hubert van (d. 1426), Flemish painter, V-161b; XII-235b
Eyck, Jan van (c. 1390-1441), Flemish painter, V-161b; XII-150b, 235b
eyebright, plant, II-308b; Index p. 68
eyepiece, of microscope, VIII-296a; *illus.* VIII-295; telescope, VIII-254b, 435b
Eye structure: human, XI-150b; animal, II-381b, 8b; insects, II-221b
eyre, ancient law court, X-48b
Eyre, lake, S. Australia, III-39b; map III-41
Ezekiel, Hebrew prophet, I-69b; 386b; Index p. 126a
Ezra (*Esdra*), book of the Bible, I-69a; Index p. 126a
Fabergé, Carl (1846-1920), Russian jeweller, XI-343a
Fabian Society X-330b; V-474a
Fable XII-145a; I-167a
Fabre, Jean Henri (1823-1915), French entomologist and writer, V-163a
Fabricius, 16th-cent. Italian anatomist, V-211b
fabrics VII-430b; furnishing, XI-189b; *see also* costume, history of
Fabulous Creatures I-167a
faceplate, of lathe, VIII-248b
face screen, safety device, VIII-379a
facing, cutting process, VIII-247a
Factory Acts X-206b, 80b, 150a; V-409b; Factory Act of 1819, V-344a; of 1833, X-206b, 140b
factory construction VIII-44a, 45b, 47a
Factory Inspector X-150a
Factory Organization VII-185a, 384a; mechanical handling, VIII-277b; safety devices, VIII-378a
factory-ship, whaling, VI-485a, 486a
Faerie Queene, *The*, by Edmund Spenser, V-423b; XII-7a
Faeroe Islands, N. Atlantic, III-164a; map III-160; language, IV-395a
Fahrenheit, scale of temperature, VIII-442a; Index p. 122
Faience, pottery, VII-170
Fairbairn stroke, rowing, IX-412b
'Fairest Isle', song by Purcell, V-375a
Fairfax, Thomas, Lord (1612-71), X-97b; IV-47a
Fairford church, Glos., *illus.* VII-480
Fairies I-169a

fairing the lines, shipbuilding, VIII-389a
 Fair Isle, Orkneys, N. Scotland, III-327b; IX-71a
 Fair Isle knitting patterns XI-277b
 Fairs IX-206a; VII-440b
 Fairs Act (1871) IX-208b
 fairy flies II-82b
 fairy primrose VI-364b
 fairy-ring, in grass, II-172b
 Fairy-Tales and Traditional Tales I-172b; XII-69a; Arabian Nights, XII-18b; folk-lore, I-179b
 Faith Healing XI-153a; miracles, I-319b
 falcon, cannon, *illus.* X-43b
 Falcon, bird of prey, II-139a; IX-210a
 Falcon, ship, V-380a
 falconet, bird of prey, II-139a
 Falconry, sport, IX-209b
 Falkirk, Battle of (1298), V-466b; (1746), V-431a
 Falkland Islands, S. Atlantic Ocean, III-164b; *map* III-322
 Falkland Islands, Battle of the (1914), III-164b
 fallow deer II-118a
 false-caddis water-veneer moth II-85b
 false pretences, in law, X-119b
 False Scorpion II-140a
 falsetto singing voice IX-427b
 Falstaff, Shakespearian character, XII-415a; orchestral work by Elgar, XII-366b; V-153a
famille verte, noire, jaune, rose, porcelain, VII-348b
 Family, History of, XI-157a
 Family Budget XI-153b
 Family Festivals XI-154b
 family planning XI-164a
 Family Welfare Services XI-162a
 Famine VI-128a; Irish (1845-6), VI-129b; V-342b, 355a
 Famine Relief Organization VI-128b
 fan, early threshing implement, VI-140b
 fan-vault XII-464b
 fan ventilator VIII-471a
 F.A.O. (Food and Agriculture Organization) X-214b
 farad, unit of measurement, VIII-273b
 Faraday, Michael (1791-1867), English scientist, V-163a
sarandole, Provençal folk dance, IX-231a
 farcy, animal disease, VI-19b
Far from the Madding Crowd, Thomas Hardy, V-209b
 farina, gum, VII-218b
 farm accounts VI-132b
 farm animals: cattle, VI-74a; donkeys and mules, VI-117b; goats, VI-203b; pigs, VI-328a; poultry, VI-356a; sheep, VI-403a; sheep dogs, VI-407b; tropical animals, VI-22a
 farm apprenticeship schemes VI-17a
 farm buildings VI-137b
 Farm Cottages VI-130a
 farmers' unions VI-294a, 137a
 farm horses VI-239a; IV-195a
 Farm-Houses VI-131a
 farming: beginnings of, VI-4a; collective, VI-97a; co-operation in, VI-

99a; Ministry of Agriculture, VI-289b; peasant farming, VI-135b, 97a, 99a; tropical, VI-460b
 Farming Distribution VI-132b; *chart*, Index p. 80
 farming year, *chart*, Index p. 72
 Farm Institutes VI-14b, 17a
 Farm Labour VI-135b; medieval, VI-305b; VII-181b; labourers' cottages, VI-130a; on collective farms, VI-97a; tropical, VI-461b
 farm machines VI-285b, 13b
 farm schools VI-17a
 Farmstead, Planning of, VI-137b
 Farm Tools, History of, VI-140a; hand tools, VI-220a
 Farm Vehicles VI-143a
 farm wages VI-137a, 290b
 Farm Week, exhibition, VI-294b
 Farnaby, Giles, 16th-cent. English composer, IX-304a; XII-98a
 Farquhar, George (1678-1707), dramatist, XII-374a
 Farrer, Reginald, 20th-cent. horticulturalist, VI-378b, 379b
 Farrow's Bank VII-31b
Farthest North, Fridtjof Nansen, V-326b
 farthingale, foundation garment, XI-187a
 farthingale chairs XI-51a
 Fascism, X-47b, 454a; V-325b
 fashions XI-86b; fashion designers, XI-116a
 fasting, in Moslem religion, I-260b; *see also* asceticism
 Fastnet Race, sailing, IX-346a
 Fates, Greek mythol., Index p. 136b
 Father Christmas I-174b
 fathom, measurement, IV-262b
 fatigue failure, of materials, VIII-145a, 287a
 Fats and Oils XI-165a, 336a
 Fauchard, Pierre, 18th-cent. French dentist, XI-98a
 Faulkner, William (1897-), American novelist, XII-16b
 fault, rock formation, III-375b
 'Fauntleroy, Little Lord', style of clothes, XI-59b
 Faunus, in Roman mythol., Index p. 139b
 Faust, theme in European literature, XII-146a
 'Fauves', the, modern art movement, XII-266b
 Fawkes, Guy (1570-1606), conspirator in Gunpowder Plot, V-165a; *illus.* X-462
 F.B.I. (Federal Bureau of Investigation) X-320b
 feast days, *see* festivals; holidays
 Feather Hunting and Farming VI-145a
 Feathers II-140b
 feather star, starfish, II-407a
 featherweight boxer IX-82b
 Federal Bureau of Investigation (F.B.I.) X-320b
Federalist Papers, political essays by Alexander Hamilton and James Madison, V-206a
 Federation X-150b
 Feeding (Farm Animals) VI-147a; cattle feeding, VI-80b

feeding-bottles, babies', XI-15a
 feelers, insects', II-221a
 feeling, as a sense, II-383a
 fee simple, landownership, X-345a
 Fegan, James, 19th-cent. philanthropist, X-80b
 Feisal I (1885-1933), King of Iraq, I-255b; V-267b
 feldspar, mineral, III-290a
 Felix, procurator of Judaea, 1st cent. A.D., Index p. 126a
 'Felix' (Nicholas Wanostrocht), 19th-cent. cricketer, IX-161b
 Fellmongering VII-188a
 fell pony IX-289b
 fells, *see* moorland
 felony X-118a
 Felt VII-188b
 Feltmakers' Company VII-189b
 Felucca, sailing craft, IV-146a
 femur (thigh-bone) XI-32a
 fences VI-56a; hurdles, VI-246a
 Fencing, sport, IX-211b
 Fenians, Irish secret society, X-407a
 fennel, garden herb, V-233b
 Fenris, wolf, Norse mythol., I-345a
 fen soil VI-422b, 31b, 37b; fen peat, VI-323a
 Fens of E. England, III-157a, 301a
 Fens, Reclamation of, VIII-159a
 fer-de-lance, viper, II-446b
 Ferdinand of Aragon (1452-1516), King of Aragon, V-165a
 Ferdinand II (1578-1637), Austrian emperor, V-466b
 Fergana, river, Uzbekiskaya/Tadjikstaya, U.S.S.R., III-460a, 431b
 Fermentation II-141b; in beer brewing, VII-41b; in cheese making, XI-52a; in cider making, VII-105a; in industrial alcohol manufacture, VII-235b; researches of Pasteur, V-350a
 ferments, in digestive system of animals, II-294a
 Fermi, Enrico (1901-), Italian physicist, VIII-315b
 Fernando Po, I., N.W. Africa, III-209a
 Ferns, wild, II-142a, 283b; classification, II-89a
 Ferns, garden and greenhouse, VI-149a, 216b
 Ferranti, Sebastian Ziani de (1864-1930), electrical engineer, VII-123a
 Ferrar, Nicholas (1592-1637), founder of English religious community, I-368b
 ferret, mammal, II-464a; VI-475b
 Ferreting, hunting, IX-213b
 ferrous metals VIII-63b
 ferry IV-160a
 Ferry, Train, IV-146b
 fertility rituals I-491a
 Fertilization, plant, VI-150b; II-347b
 fertilizers, manure, VI-278a; artificial fertilizers, VI-35b; farmyard manure, VI-277a
 fescue, grass, II-182b
 festival cakes XI-40a
 Festival Hall, *see* Royal Festival Hall
 Festival of Britain (1951) VII-183b
 Festivals I-174b; IX-283a, 472a; Christian festivals, I-122b; family festivals, XI-154b; music and drama festivals, IX-340b

- festoon moth II-66b
 Festus, procurator of Judaea, 1st cent. A.D., Index p. 126a
 fetishism (juju) I-27b
 fettling, of furnaces, VIII-413a
 fettling, of metal castings, VIII-65b; *illus.* VIII-66
 Feudal System X-151b; castles, XI-44b; Domesday Book, X-134b; knight-service in war, X-39b; land tenure, VI-258a, 305b
 feverfew, garden flower, VI-87b
 Fez, French Morocco, N. Africa, III-303a
 Fezzan, desert, N. Africa, III-257a
 Fibre Crops VI-151b; in brushmaking, VII-60b; textile fibres, VII-430a
 fibula, leg-bone, XI-32a
 fiddle-leaf fig, house plant, VI-246a
 Fidei Defensor (Defender of the Faith), title conferred upon Henry VIII, V-219a
 Fidelio, opera by Beethoven XII-311a; V-37a
 Fidelity Guarantee, insurance, VII-246b
 FIDO, fog-clearing device, IV-19b
 fief, in feudal system, X-151b
 fieldfare, thrush, II-426b
 Field Game, Eton football, IX-204b
 field-gun X-44b, 46a
 Field of the Cloth of Gold (1520) V-219a
 Fielding, Henry (1707-54), English novelist, V-165b; XII-298b-300a
 Fielding, Sir John (d. 1780), magistrate, X-83b
 field magnet VIII-134b
 fife, wind instrument, IX-487a
 Figg, James (d. 1734), boxing champion, IX-82a
 Fighter Aircraft X-153b; in Battle of Britain, X-51a; bombing raids, X-14a; in First World War, X-154a, b; *illus.* X-15
 Fighter Command X-8a
 fighting fish II-33b
 fig insect II-82b
 Figs VI-154a
 Figures of Speech XII-146b
 figuring, of telescope glass, VIII-437b
 figwort, plant, Index p. 68
 Fiji Is., Pacific Ocean, III-331a; *map* III-323
 Fijians, *see* Pacific Islanders, Melanesians
 filament lamps VIII-224a
 filbert nut VI-295b; II-167a
 filibuster, in American politics, X-3a
 filing, metal, VIII-162b
 filing systems, office, VII-314a
 Filipinos, people of Philippine Is., III-339a; *see also* Indonesians
 fillings, for cakes, XI-248b
 film, photographic, VIII-325a; 58b; IX-371b; of cine-camera, VIII-73a; colour film, VIII-73b; IX-373b; *see also* photography
 film industry VII-178b
 film projectors VIII-73b
 Films, cinema, IX-214a; censorship, X-76b; cine-cameras and projectors, VIII-72b; cost of making, VII-179b; high-speed photography, VIII-207a; silent films, IX-129a; VIII-75a; *see also* cinema; cinematography
 Films, Animated (cartoon films), IX-217a
 Films, Children's, IX-218b
 Films, Documentary, IX-219b
 Films, Production of, IX-222a
 Film Societies IX-225b
 filter beds, sewage, VIII-384b; water purification, VIII-479b
 Finance VII-190a; international, VII-247b; national, X-284a
 Finches, birds, II-144a; IX-107a
 Findon cure, method of smoking fish, VI-157b
 Fingal's Cave, Scotland, III-467b
 Fingal's Cave, overture, Mendelssohn, V-306b
 Finger-Prints X-154b, 83b; XI-407b
 Finke, river, central Australia, III-39b; *map* III-41
 Finland (Suomi) III-165a; *map* III-160; folk-dancing, IX-232a-235a
 finnan haddie, haddock, II-93b
 Finnish and Allied Languages IV-147a
 Finno-Karelia, republic, U.S.S.R., III-165b; *map* III-459
 Finno-Ugrian peoples I-177b
 Finns I-177b; national dress, *illus.* XI, opp. p. 368
 fins, of fish, II-148b
 Finsteraarhorn, mountain peak, Switzerland, IX-332a
 fin whale VI-485b
 fiords III-98b; of Norway, III-319a
 fipple flute, wind instrument, IX-400a
 fir-cones II-346a
 Firdawsî (d. 1020), Persian poet, XII-340b
 fire, discovery of, I-376a; theory of, VIII-85b
 Fire and Accident insurance VII-246a
 firearms: ballistics, VIII-19a; explosives, VIII-156b; sporting guns and rifles, IX-437a; *see also* weapons, hand
 fireball, meteor, III-286b
 firebox, of boiler, VIII-31b, 32a
 firebrat, insect, II-391a
 firebricks VIII-160b
 Fire Brigades X-155b; fireproof clothing, VII-20b; 19th-cent. fireman, *illus.* VII-245
 Fireclays and Refractories VIII-160b
 firecrest, bird, II-181a
 firedamp (methane), gas, VII-113a; VIII-306a, 385b
 Fire-fly II-146b; IX-369b
 fireman: railway, IV-346b; ship, IV-409b
 Fire mark, insurance sign, *illus.* VII-245
 Fire of London X-158b; XII-103b
 Fireplaces XI-165b
 fires, forest, VI-172b
 fire-watcher, civil defence, X-89a
 Fireworks IX-226a
 firework signals IV-233b
 fire worship I-352b
 firkin, cask, VII-86b
 firkin, measure, VI-11b
 First Aid XI-167b; after air raids, X-90a; bone and muscle injuries, XI-32b
 First Officer, air-liner, IV-14a
 First World War X-59a; air warfare, X-377a, 14b, 6b; English finance, VII-36b; poison gas, X-173b; tanks, X-440b; trench warfare, X-230a; chart of events, Index p. 59
 fir trees VI-458b; II-95a; classification, II-89b
 Fish, as food, XI-169b; fish cannery, VI-159a, 398b; cookery, XI-171a
 Fisher, John (1459-1535), bishop of Rochester, V-321b
 Fisher Act (1918) X-142a
 fisheries: American, VI-159a; Asiatic, VI-158a; British, VI-156a; European, VI-157b; Oceania, VI-158b
 Fishes II-147a; blood system, II-199b, 148a; reproduction, II-149b; 344b; respiration, II-349a
 fishes: aquarium, IX-19a; blind, II-48b; deep-sea, II-114b; electric, II-133b; flat-fishes, II-150b; flying, II-161a; poison, II-326a
 fishes, fossil, I-172a; prehistoric, III-352a
 fishing, as a sport: big game, IX-62b; freshwater, IX-15a; sea, IX-18a
 Fishing, History of, VI-155a
 fishing boats VI-156a, 155b; trawlers, VI-454a
 fishing dance IX-233a
 fishing hawk (osprey), bird, II-301b
 fishing hooks and lines VI-161b; nets, VI-159b; traps, VI-161a, 124a
 Fishing Industry VI-156a
 Fishing Methods VI-159b
 fish-lizard (ichthyosaurus), prehistoric animal, III-352a; *illus.* III-172
 fish meal, animal food, VI-170a, 159b
 Fishmongers' Company VII-107a
 fish-plates, of railway track, VIII-363a
 Fish Shooting VI-162a
 Fish Trade VII-190b
 fish traps VI-161a; crab and lobster, VI-103a; eel, VI-124a; octopus, VI-299a
 Fitting, of machinery parts, VIII-161b
 fitting out, of ships, VIII-391b
 Fitzgerald, Edward (1809-83), translator of Omar Khayyâm, XII-460b
 Fitzgerald, George Francis (1851-1901), Irish physicist, III-366a
 Fitzgerald Contraction, theory, physics, III-366a
 Five Mile Act (1665) III-53b
 Fives, ball game, IX-228a
 fixed oils VII-320a; plants, VI-300a
 fixture, machining device, VIII-240a, 242a
 flagellata (mastigophora), single-celled animals, II-335a
 flageolet, wood-wind instrument, IX-400b
 flageolet, seed of kidney bean, VI-45a
 Flags IV-148a
 Flag Signalling IV-150b; morse, IV-268b; semaphore, IV-401b
 Flaherty, Robert, film director, IX-215b, 220a
 flail, threshing implement, VI-287a, 140b
 'Flamboyant', period of medieval architecture, XII-177b

flame VIII-86a
 flame-thrower, artillery, X-46a
 Flamingo, bird, II-150b
 flamingo plant VI-216a
 Flamsteed, John (1646-1719), English astronomer, IV-289a
 Flanders, N. Belgium, I-67b
 'flapping' meetings, horse-racing, IX-290a
 flaps, aircraft controls, IV-4a, 153b
 flashings, roof lead, XI-386b
 flash photography VIII-208a
 Flat-fishes II-150b; English fishing, VI-156b; as food, XI-170a
 flat-plate absorber, of solar energy, VIII-397a
 Flats XI-171b; balconies, XI-18a
 flatulence, digestive disorder, XI-102a
 flat-worm II-482a; VI-315b
 Flaubert, Gustave (1821-80), French novelist, V-166b
 Flavourings XI-174a
 flax, fibre, VI-151b; VII-269a
 Flaxman, John (1755-1826), English sculptor, XII-455b
 Flea II-153a; as animal pest, VI-168a; as household pest, XI-230b
 flea beetle VI-52a
 flea circuses IX-369a
 Fleet Air Arm X-291b
 Fleet prison, London, X-338b, 340b
 Fleetwood, Lancs., fishing port, VI-156b
 Fleming, Sir Alexander (b. 1881), British scientist, XI-126b
 Fleming, Sir John Ambrose (1849-1945), electrical engineer, VIII-445b
 Fleming Report, education, X-353a
 Flemings, N. Belgian people, I-68b; national dress, *illus.* XI, opp. p. 368
 Flemish architecture XII-149b, 153a
 Flemish Art XII-149a, 235b; portraits, XII-349b; still-life, XII-439a; tapestry, VII-426b
 Flemish language IV-171a
 flensing, stripping of whale, VI-485a
 Flesh Fly II-153b
 Fletcher, John (1579-1625), English dramatist, XII-91b
 flettons, bricks, VIII-37a
 Fleuve Rouge (Red River), Indo-China, III-232b; *map* III-87
 flicker, bird, II-47a
 Liedner, Theodor (1800-64), German pastor, XI-333b
 Flight, of birds, II-154a
 flight engineer, air-liner, IV-14a
 Flight Information Regions IV-381b
 Flinders, Matthew (1774-1814), navigator, IV-144b
 Flint, rock, III-166a
 Flint, co., Wales, III-471a
 flint glass VII-206b
 flints, primitive weapons and instruments, I-382b; VII-92b; IV-495a
 floating debt, government, X-283b
 floating dock IV-129a
 floats, seaplane, IV-396b
 Flood, the, myth, I-62a, 221b
 Flood Control VIII-164a; Central Valley Project, California, VIII-69a; in fens, VIII-159b
 flood-gate, canals and rivers, IV-238b

floods, cause of famine, VI-128a
 Floors and Ceilings XI-174a; VIII-43b; floor coverings, XI-42a
 Flora, Roman goddess, IX-284a
 Florence (Firenze), Italy, III-166b; *map* III-160; medieval city state, X-88a; Ponte Vecchio *illus.* IV-62
 Florentine Painting XII-153a
 Flores, I., Atlantic Ocean, III-44b
 florican, bird, II-61b
 Florida, state, U.S.A., III-319a, 453a; *map* III-451
 florin, coin, VII-123a, 124a
 flotsam and jetsam, goods lost at sea, IV-393a
 flounder, flat-fish, II-152b; IX-18b
 flour XI-48a; in bread-making, XI-36b; in cake-making XI-39a
 Flour Milling VII-192b; *illus.* VII-186a
 flow diagram, of chemical plant, VIII-72a; *diag.* VIII-71
 Flower Collecting IX-229a
 Flower Decoration XI-176a
 flower families, Index p. 63
 Flower Gardens VI-163a
 flower language IV-416b
 flower shows VI-14a
 Flowering Plants II-155a, 89a
 Flowering Shrubs VI-164b; in green-houses, VI-217a
 Flowers II-157b; classification, II-89a; Index p. 63
 Flower Trade VII-195a
 flügelhorn, brass instrument, IX-94a, 89b
 fluid flywheel, motor-car, IV-270a
 flunkey moth II-430b
 fluorescent lamp VIII-224b
 fluorine, gas, III-291a
 fluor-spar, mineral, III-291a; VII-298a; *illus.* III, opp. p. 288
 flushworm (tea tortrix), insect pest, VI-465a
 flute, wind instrument, IX-486b, 340b; in orchestra, IX-351b-352b
 fluted scale, insect pest, VI-327a
 fluting, ornament, *illus.* XII-320
 flux, enamel, VII-176a
 flux, soldering, VIII-398a; gold and silver soldering, VII-209a
 Fly II-159b; fly pests, VI-167a, 27b
 fly agaric, fungus, II-172a
 Fly-catchers, birds, II-160b
 fly-fishing IX-17a
 fly-frames, cotton industry, VII-140b
 Flying IV-151b; aerobatics, IV-1a; aerodynamics, VIII-217a; aircraft design, VIII-3b; aircraft industry, VII-10b; civil aviation, IV-97a; high-altitude flight, IV-188a; high-speed flight, IV-428b; navigation, IV-298b; rule of the road, IV-381b; supersonic speed, IV-441b; weather conditions, IV-102a; *see also* aeroplane; aircraft
 Flying, History of, IV-154b
 flying, training, IV-11a, 13b; Air Force training, X-10a
 flying-boat IV-396b
 flying bomb X-178b; IV-10a
 Flying Fishes II-161a
 Flying Fish Fishing VI-166b
 flying fox, bat, II-32a

Flying Instruments IV-158b, 4b; VIII-194a; automatic pilot, VIII-166b
 flying proa, canoe, IV-85a
 Flying Scotsman, train, IV-160a
 Flying Squad, police, X-84a
 fly-over junctions, road, IV-371b
 Fly Pests VI-167a, 27b
 fly-posting VII-9a
 F-number (focal length), of lens, VIII-253a
 focal-plane shutters, of camera, VIII-59b
 Foch, Ferdinand, Marshal (1851-1929), French soldier, V-280b
 focus, of lens, VIII-252a
 Foedera, historical documents, XII-193a
 Fog III-167b; effect on communications, IV-100b; FIDO (fog-clearing device), IV-19b; fog-bow, III-362b
 fog-signals IV-232a, 381a
 Föhn Wind, of N. Alps, III-168b
 foil-fencing IX-212a
 Fokine, Michael (1888-1943), Russian dancer and choreographer, IX-48b
 foliation, rock structure, III-380a
 folio, book size, IV-54b
 foliot balance, of clock, VIII-78b
 Folk Dancing IX-230a
 Folk Dancing, British, IX-236a
 Folk-Lore I-179b
 Folk-Song XII-155b; ballads, XII-36a; carols, XII-60b
 Folk Song Society IX-237a
 follicle, type of fruit, II-167b
 follicles, of skin, II-193a
 folly, ornamental building, XII-233b
 fondue, Swiss dish, XI-53b
 Font, baptismal, XII-157b
 Fontainebleau Palace, France, XI-348b
 Fonteyn, Margot, Dame (1919-), ballet dancer, IX-49a; *illus.* IX-45
 Fonvizin, Denis (1745-92), Russian dramatist, XII-395b
 food: animal, II-293b; plant, II-294b
 Food, History of, XI-177b; eating-houses, VII-88a; grocery trade, VII-216a
 Food and Agriculture Organization X-214b
 Food Hygiene XI-161a
 Food Poisoning XI-180b
 Food Preserving XI-181a; canning industry, VII-77a; cold storage, VII-124b; egg preserving, VII-175a
 Foods (Farm Animals) VI-168b
 Food Storage XI-183a
 Food Values XI-184a
 fool (jester) IX-298b
 Foolish Fire (Will-o'-the-wisp) III-486a
 foolscap, paper size, IV-54b
 fool's parsley, weed, VI-480b
 foot, measure, IV-263a
 foot and mouth disease VI-21a
 football: Association, IX-23b; American, IX-12b; Eton, IX-204a; Harrow, IX-275b; Rugby, IX-414b, 416b, 418a; Winchester, IX-484b
 Football Association IX-26b-28b
 football commentaries IX-98b
 Football Leagues, Association Football, IX-29b, 27b
 Football Pools IX-239a

- footman moth II-430b
 footpads, robbers, IV-190b
 foot-pound, measure, VIII-273a
 foot-rot, animal disease, VI-19b, 411b
 foraminifera, single-celled animals, II-334b
 Forbes, J. D. (1809-68), Scottish scientist, IX-332a
 Forbidden City, Peking, China, XII-335b
 Ford, Henry (1863-1947), American motor-manufacturer, VII-302b
 Ford and Ferry IV-160a
 Ford Motor Company VII-303a
 Foreign Aid Act (1948) X-260a
 Foreign Legion X-162a
 Foreign Office X-162a
 Foreign Secretary X-162b
 forensic science X-84b
 forester moth II-60b
 Forest Fires VI-172b
 forest fly II-230a
 forest glass VII-206a
 Forest Laws VI-348b
 Forestry VI-173a
 forestry Act (1919) VI-176b
 Forestry Commission VI-176b
 Forests III-169a; afforestation, VI-1a; national forests, VI-176b
 Forfeits, game, IX-240b
 forge, blacksmith's, VI-413b
 Forgeries (art) XII-158b
 forget-me-not, plant, VI-54b; Index p. 67
 forge welding VIII-483a
 Forging and Pressing VIII-166b
 fork XI-444a, b
 formaldehyde, chemical, VII-425a
 form cutter, metal milling, VIII-297b
 formic acid VII-6b, 4a
 Formosa (Taiwan) I., Pacific Ocean, III-171a; map III-87
 formula, expression by symbols: mathematical, IV-260a; VIII-6b, 190b; chemical, III-83b
 Fornacalia, pagan festival, IX-284a
 Fornax, Roman goddess, IX-284a
 Fort Dufferin, Mandalay, Burma, III-275b
 Forth and Clyde canal IV-82b
 Forth Bridge IV-162b
 Fortifications X-164a; of ancient Britain, I-150a; castles, XI-44b
 Fort St. George, India, VII-171b; *illus.* X-104
 Fortune-telling IX-241b; astrology, I-44a; divination, I-142a
 'Forty-Five, The', rebellion, V-430b
 forum, ancient Rome, III-381b
 Foscolo, Ugo (1778-1827), Italian poet, XII-220b, 128a
 Foss Dike, Lincs., IV-81b
 Fossil Man I-182a, 165a
 Fossils, animal and plant, III-171a; prehistoric animals, III-351b
 Foucault, Jean Bernard Léon (1819-68), French physicist, III-26a
 foul brood, disease of bees, VI-50b
 Foundation Garments XI-187a
 foundations, building, VIII-44b; distribution of stress, *diag.* VIII-396
 Founders' Company VII-107b
 Foundling Hospital, London, X-78a
 foundries, metal casting, VIII-63b
 fountain pen IV-496a
 Fountains XII-159a; *illus.* XII-39
 Fountains Abbey, Yorks., *illus.* I-325
 Fowler's match, cricket (1910), IX-163a
 fowl-pox, disease of poultry, VI-361b
 fowls VI-356a; breeding, VI-429b; feeding, VI-148b; tropical fowls, VI-24a
 Fox, mammal, II-162a; VI-475b; flying fox, II-32a
 Fox, Charles James (1749-1806), Whig politician, V-167a; IX-248b
 Fox, George (1624-91), founder of the Society of Friends, V-167b; I-388a
 fox and geese, board-game, IX-73a
 Foxe, John (1516-87), author of *Book of Martyrs*, XII-193a
 fox fur VII-200b; farming, VI-185b; hunting, VI-188b
 foxglove, plant, VI-54a, 480a; Index p. 68
 foxhound, hunting dog, IX-245a
 Fox Hunting IX-244b, 294b
 fox moth II-235b
 foxtrot, dance, IX-51a
 fractionating tower, oil refining, VII-317a
 fractions, mathematics, VIII-13a, 14a
 fractures XI-32b, 169a, 344b
Fragment on Government, Jeremy Bentham, V-39a
 Fragonard, Jean-Honoré (1732-1806), French painter, XII-161b
 Fram, polar ship designed by Nansen, V-326a
 Frames, Garden, VI-177b, 281a
 France III-173a; map III-160; air-force, X-9b; army, X-34a; First World War, X-159a; Hundred Years War, X-200a; Napoleonic Wars, X-279a; navy, X-300a; Second World War, X-403a; trade unions, VII-455a; wine production, VII-471a; *see also* French
 franchise, parliamentary, X-145a
 Francis I, King of France (1494-1547) IV-44a
 Francis of Assisi, St. (1182-1226), founder of Franciscan Order, V-168a; *illus.* I-331
 Franciscan Order, friars, I-187a; *illus.* I-188
 Francis Ferdinand (1863-1914), Austrian archduke, X-159a
 Franco-Prussian War (1870-1) I-184b; siege of Paris, X-411a
 franc-tireur, guerilla fighter, X-178b
 frangipani, perfume, XI-354a
 Frankfurt-on-Main, Germany, III-176a; map III-186
 frankincense XI-352a
 'franking', of letters, IV-327b; franking machine, VII-315b
 Franklin, Benjamin (1706-90), American statesman, V-169b; IV-445a
 Franklin, Sir John (1786-1847), English admiral and explorer, V-170b
 Franks, early European peoples, I-184a
 Franz Ferdinand, archduke, *see* Francis Ferdinand
 Franz Josef Land, North Pole, III-346a
 Fraternities, American student societies, IX-475b
 Fraud Squad, police, X-84b
 Frazer, Sir James (1854-1941), anthropologist, author of *The Golden Bough*, XII-194a
 Frederick III (1486-1526), Elector of Saxony, V-285b, 286b
 Frederick V (1596-1632), Elector Palatine, V-466b
 Frederick Barbarossa (c. 1123-90), Holy Roman Emperor and German king, V-171a
 Frederick the Great (Frederick II, 1712-86), King of Prussia, V-171b; use of cavalry, X-75a; *Life of*, V-71a
 Free Churches (Protestant denominations) I-64a, 129a, 307b; Free Church of Scotland, I-91b
 freedom of the press IV-304b
 Freedom of Speech IV-163a
 freehold tenure, land, VI-258b
 free-lance journalist IV-214a
 Freemasons X-166a
 freestone, stone, VII-415a
 free trade VII-249b
 free verse (*vers libres*) XII-270b
 free-wheel, of bicycle, VIII-368b
 freight aircraft IV-11a
 Freighters, aircraft, X-459b; *illus.* IV-11
 freight trains IV-174b; locomotives, IV-240a
 French I-184a; *see also* France
 French Academy IV-165b; XII-1a
 French Africa III-176b; map III-5; Somaliland, III-408b
 French architecture XII-160b
 French Art XII-160a
 French bean VI-45a
 French Constitution X-167a; law, X-236a; local government, X-252b; police forces, X-320b; political parties, X-332a, 167b; foundation of the republic, X-168b, 370a
 French curve, drawing instrument, VIII-110b
 French drama XII-457b, 109a
 French gardens VI-195a
 French Guiana, S. America, III-207a-208a; map III-415; peoples, I-487b
 French horn, wind instrument, IX-90b; *see also* horn
 French Indo-China III-232a; map III-87; peoples, I-249a
 French Language IV-164a
 French Literature XII-164a
 French overseas territories, *see* French Africa; French Guiana; French Indo-China; French West-Indies; colonial history, X-104b-106b, 108a; VII-233b
 French West Indies III-484b; peoples, I-487b
 French Revolution X-168a; influence on dress, XI-90b; on literature, XII-165a; influence of Rousseau, V-393b; of Voltaire, V-462a; murder of Marat, X-47a; Napoleonic Wars, X-279a
French Revolution, The, Thomas Carlyle, V-70b
French Revolution, Reflections on the, Burke, V-63a

- frequency, wave vibrations, III-475a; electric currents, VIII-9a; *table* VIII-360; high-frequency currents, VIII-204b; mechanical vibrations, VIII-473b; radio waves, VIII-357a; of musical sounds, IX-336a; VIII-1a frequency modulation, radio, VIII-358a; IV-428b
- fresco, painting method, XII-325a; *illus.* XII-153
- frescoes, of Giotto, V-190b; XII-214b; of Vatican, XII-462b
- Freshfield, D. W. (1845-1934), mountaineer, IX-332b
- freshwater angling IX-15a
- freshwater fish, as food, XI-170b
- Fretwork VII-195b
- Freud, Sigmund (1856-1939), Austrian psychologist, V-173a; XI-373a; 'active forgetting', XI-308a; theory of dreams, XI-115b; influence on literature, XII-301a; influence on modern art, XII-444b
- Freya (Frigg), goddess, Norse mythol., I-344a, 197a
- Friar I-187a, 117a
- Friction and Lubrication VIII-169a; in motor-car engine, VIII-154b
- friction, measurement of, VIII-351a
- friction clutch VIII-82b
- Friendly Societies X-170b; building societies, VII-68b
- Friends, Society of (Quakers), Christian denomination, I-388a
- Friends' Relief Service VI-129b
- Friesian cattle VI-76b, 74b
- frigate, ship, X-297b; *illus.* X-383; sailing frigate, X-122a
- Frigate Bird II-162b
- Frigg (Freya), goddess, Norse mythol., I-344a, 197a
- frilled lizard II-2b; *illus.* II, opp. p. 272
- Frisch, 20th-cent. Austrian physicist, VIII-314a
- Frisian language IV-171a
- frit fly, pest, VI-297b
- frit glass, glaze, VII-352a
- Fritillary, butterfly, II-163a; Duke of Burgundy, II-126b
- fritillary, lily, II-246b
- Frobisher, Sir Martin (c. 1535-94), sailor and explorer, V-173b
- Froebel, Friedrich (1782-1852), German educationalist, V-174b
- Frog II-164b, 7b; flying frog, II-165b
- frogfish II-10b, 72b
- Frog-hopper, insect, II-166a
- frog hopper blight, insect pest, VI-465b
- frogmen IV-128b
- frogmouth, bird, II-292a
- Frogs, The*, Aristophanes, V-16b, 17a
- Froissart, Jean (c. 1337-1410), French chronicler, XII-192b
- fronds, of ferns, VI-149b
- Frost III-176b; effect on communications, IV-100b; cause of rock erosion, III-127a
- frost fairs, of river Thames, IX-207b; III-177b
- Froude, James Anthony (1818-94), historian, XII-44b
- fructose, natural sugar, XI-430a
- fruit: bottling and canning, XI-182b; VII-78a; cooking, XI-30a
- Fruit-growing VI-178a; cold storage, VII-124b; grading machines, VI-206b; marketing, VII-214b; VI-180a; packing, VI-180a; picking, VI-180a; sorting, VI-180a, 282a
- Fruit Propagation VI-181a; apples, VI-27b; apricots, VI-30a
- Fruits, botanical, II-166a; seed dispersal, II-379b
- Fruit Spraying VI-184a
- fruit-sucker, bird, II-59b
- Fry, C. B. (1872-), cricketer, IX-162a
- Fry, Elizabeth (1780-1845), social reformer, V-175a
- Fry, J. S. & Sons, chocolate manufacturers, VII-118b
- Frying XI-188a
- fu*, prose-poem, Chinese literature, XII-75a
- fuchsia, garden shrub, VI-217b, 27b
- Fuelling in Flight IV-165b
- Fuels VIII-171b; combustion, VIII-85b; *see also* engine
- Fugger, 16th-cent. German banking family, VII-290a
- fugue, musical form, XII-285b
- Fujiyama, volcano, Japan, III-178a; *map* III-245
- Fulani, African peoples, I-337b
- fulcrum, of lever, VIII-255a
- Fuller, Thomas (1608-61), English historical writer, XII-193a
- fuller's earth, decolorizing agent, VII-279a
- fuller's teal, used in cloth manufacture, VI-439a
- fulmar, bird, II-317a, 316a
- fulminate, mercury compound, VII-293a
- fumigation of plants VI-249b
- funambulist (tight-rope walker) IX-1b
- function (formula), of graph, VIII-190b
- funded debt, National Debt, X-283b
- Fundy, Bay of, Nova Scotia, Canada, III-69b; tide, III-441a
- funeral ceremonies I-139a
- Fungi II-169b; classification, II-89b; reproduction, II-172b, 345b
- Fungi, edible, XI-188b
- fungiacoral, sea animal, II-98a
- fungus diseases VI-325b; animal diseases, VI-21a; plant diseases, VI-339b, 455b
- funicular railways IV-283a
- Fur Farming VI-185a
- Fur Hunting VI-188a
- Furies, in Greek mythol., Index p. 139b
- furlong, agricultural measurement, VI-10a
- furnace: blast, VIII-25b; muffle, VII-21b; open-hearth, VIII-412a; steel-making, VIII-411b
- Furnishing Materials XI-189a
- furniture: beds, XI-21a; chairs, XI-49a; chests and cupboards, XI-53b; mirrors, XI-314b; tables, XI-440a
- Furniture, Care of, XI-191b
- Furniture, History of, XI-192a
- Furniture, Modern, XI-196a
- furniture forgeries XII-159a
- Furniture Industry VII-196b; cabinet making, VII-74a; inlay and marquetry, VII-243a; upholstery, VII-459b; veneer, VII-345b; woods used, VII-223a
- Furs, clothing, XI-198a
- Fur Trade VII-199b
- fur trapping VI-188a
- fuse, in electric circuit, XI-131b-133a
- fuse-box XI-131b
- fusee device, of early clock, VIII-80a
- fuselage, aircraft, IV-3a
- fustian, cloth, VII-138a
- Futurism, modern art movement, XII-267b
- Fuzes, of explosives, VIII-174b
- fyke net, fishing net, VI-161a
- fyrd*, Anglo-Saxon militia, X-39b
- gabbro, rock, III-378a
- gable, of roof, *illus.* XI-385b
- Gabriel, archangel, Index p. 126a
- Gad, son of Jacob, Old Testament, Index p. 126a
- Gadarenes, Hebrew people of Gadaria, Index p. 126a
- gadfly (horse-fly), insect, II-212b
- gadrooning, ornament, *illus.* XII-3
- Gaelic Language IV-167a; I-258a; III-215b; alphabet, IV-25a
- Gaels, early peoples of Scotland, I-431a
- gaff rig, of sailing boat, IX-422b
- Gaillard, Château, Normandy, XI-45b
- gaillardia, garden flower, VI-114a
- Gainsborough, Thomas (1727-88), English landscape painter and portraitist, V-178a; *illus.* XII, opp. pp. 96, 352
- Gaiseric (c. A.D. 390-477), Vandal leader, I-483a
- Gaius (c. A.D. 110-c. 180), Roman law-giver, X-235a
- galagos, lemurs, mammals, II-243a
- Galapagos Is., Pacific Ocean, III-148a; V-125a; *map* III-323
- Galashiels, Scotland, wool industry, VII-486b
- Galatia, Roman province, Index p. 126a
- Galatians, Epistle to the*, St. Paul, I-442a
- Galaxy (Milky Way), stars, III-455a, 309a
- galeeny, guinea-fowl, VI-219a
- Galen, 2nd-cent. Greek physician, XI-303a, 304a, 338a, 344b
- galena, metal ore, VII-263b
- Galilee, *province*, north Palestine, Index p. 126a; Lake of (Gennesaret), Index p. 126a
- Galileo (1564-1642), Italian astronomer and physicist, V-179a; III-24b; pendulum clock design, VIII-80b
- Gallas, peoples of Abyssinia, I-1b
- gall-bladder, in digestive system, XI-101b
- galleass, ship, IV-389b
- galleon, ship, IV-390a
- galleries, art, XII-27b
- galley, classical ship, IV-98b
- galley, warship, X-398b
- galley proof, printing, IV-50a
- galley slaves X-411b
- galliard, dance, IX-50a
- Gallie War*, Julius Caesar, V-252b
- gall-midge, insect, II-173b

- gallon, measure, VI-11a, 10b
 Galloway cattle VI-78b; *illus.* VI-77
 gall-sickness, cattle disease, VI-23a
 gall-stones XI-101b
 Gallus, Gaius Cornelius (69-26 B.C.), Roman poet, XII-127b
 gall-wasp II-173a
 Galton, Sir Francis (1822-1911), English scientist, X-154b
 Galvani, Luigi (1737-98), Italian scientist, VIII-124a
 galvanized iron VIII-98a
 galvanizing, of metals, VIII-423a
 galvanometer, measuring instrument, VIII-123b
 Gamages department stores VII-276a
 Gamaliel (1st cent. A.D.), Jewish rabbi, Index p. 126a
 gambeson, armour, X-37a
Gambia, H.M.S., British cruiser, *illus.* X-123
Gambia, W. Africa, III-179a; *map* III-5
 Gambling IX-247a; dice, IX-181b
 game birds II-317b; as food, XI-363b
 game-cock, bird, IX-144b; *illus.* VI, opp. p. 336
 game reserves IX-343a
 games: board, IX-71a; card, IX-112a; deck, IX-177a; hiding, IX-276a; paper, IX-358a; party, IX-360a; pub, IX-387a; singing, IX-428b; street, IX-447a; tracking, IX-471a; traditional, IX-472a; I-179b; *see also* athletics; sports
 Game Shooting IX-249b; game laws, VI-348a; seasons, VII-353b; sporting guns and rifles, IX-437a
 game trade VII-353b
 Gandhi, Mohandas Karamchand (1869-1948), Indian leader, V-180b; assassination, X-47b
 Ganelon, traitor in the *Song of Roland*, XII-63a
 Ganges, river, India/Pakistan, III-179b, 226b; *map* III-229
 Gannet (solan goose) II-174a; as food, XI-363b
 Ganymede, in Greek mythol., Index p. 139b
 gaper, clam, II-88b
 gapes, poultry disease, VI-361a
 gape worm, parasite, VI-316b
 garage, bus and coach, IV-279a
 garage services IV-372a
 Garcilasso de la Vega (1503-36), Spanish poet, XII-433b
 Garden Buildings XI-200a
 Garden Cities and New Towns X-172a
 gardener bird (bird of paradise) II-43b
 Garden Hedges VI-191a
 gardenia, greenhouse plant, VI-216a
 Gardening, History of, VI-192b; landscape design of 18th cent., XII-233a
 Garden Paths VI-197b
 garden pests VI-325b
 gardens VI-192b; allotments, VI-17a; flower, VI-163a; rock, VI-371b; vegetable, VI-471b; water, VI-478a
 gardens, public, IX-358b; VI-194b
 garden tools VI-220b
 garderobe, early type of lavatory, XI-394a; *illus.* XI-393
 Garfish II-175a; fishing, IX-18b; VI-257a
 Gargantua, giant, V-377b
Gargantua, Rabelais, V-377a
 garget, animal disease, VI-19b
 Garibaldi, Giuseppe (1807-82), Italian liberator, V-182a
 garlic VI-304b; II-246b
 Garnet, precious stone, III-180b
 Garonne, river, S.W. France, III-174a, b; *map* III-173
 Garrick, David (1717-79), English actor, V-183b; *illus.* IX-7
 Garter, Order of the, X-186b
 gas: for cooking, XI-82b; for heating, XI-219a; for lighting, XI-286b
 Gas, Natural, III-180b
 gas cooker XI-82b; VIII-86a; regulator, VIII-16a
 gas engine VIII-153b
 gaseous fuels VIII-174a
 gases, absolute zero temperature, VIII-442b, 176b; combustion, VIII-86a; compression, VIII-86b; 'critical temperature', VIII-257a; expansion, VIII-156a; liquefaction, VIII-256b; 'perfect' gases, VIII-442b, 176b; 'permanent' gases, VIII-257a; specific heat, VIII-177a
 gases, manufactured, VIII-174a
 Gases, Properties of, VIII-176a
 gasholder VII-179b
 Gas Industry VIII-202a
 Gas Light and Coke Company VII-202b
 Gas Manufacture VIII-177a; gas coals, VIII-173a
 gas mask X-174a
 gasoline, *see* petrol
 gastric juice, of digestive system, XI-101a
 gastropoda, class of animals, II-270b
 Gas Turbine VIII-181a, 154a; compressors, VIII-87b; power measurement, VIII-116a
 gas turbine engine: air, IV-8b; marine, VIII-268a; rail, IV-167b; road, IV-374b
 Gas Turbine Locomotive IV-167b
 Gas Warfare X-173b
 Gatehouses XI-202b
 gatekeeper butterfly II-55a
 Gath, Philistine city, Index p. 126a
Gathas, Zoroastrian sacred writing, I-421a
 Gattamelata, statue of, Donatello, XII-215b; *illus.* I-400
 gauge, tool, *illus.* VII-82
 gauge pressure VIII-333a
 Gauges, Railway, IV-168a; VIII-361a
 Gauguin, Paul (1848-1903), French painter, XII-354a, b; *illus.* XII, opp. p. 353; VII, opp. p. 336
 Gaul, province of Roman Empire, I-184a
 Gaulle, Charles André Joseph Marie de (1890-), French soldier and statesman, X-403b
 Gauls, early European peoples, I-184a
 Gaunt, John of (1340-1399), son of Edward III, V-184a, 493a
 gauntlet, armour, X-38b; *illus.* X-37
 gaur, wild cattle, II-80a; IX-66a
 Gautama, Siddhartha, the Buddha (c. 6th cent. B.C.) V-184b; I-82a
 gaval, crocodile, II-107b
 Gaza, Philistine city, Index p. 126a
 gazelle, antelope, II-17b
 G.C. (George Cross), X-262a; *illus.* X-261
 Ge (Earth), Greek mythol., I-194a
 Gears VIII-182b; motor-car, IV-270a
 gear cutting VIII-185a
 Geb, Egyptian god, I-159a
 Gebal (Byblos), city-state of ancient Syria, I-363b
 Geber (8th cent. A.D.), Arab chemist, VII-98a, 4a
 Gecko, lizard, II-175a
 Gee, air navigation aid, IV-291a
 Geese, domestic, VI-199a; feather farming, VI-147a
 Geese, wild, II-176b
 Gehazi, Elisha's servant, Old Testament, Index p. 126a
 Gehenna, hell, Jewish religion, I-224a; Index p. 126a
 Geiger-Müller counter, particle detector, VIII-354b
 gelada, baboon, II-28a
 gelatine XI-265a
 Gellée, Claude, French painter, *see* Claude
 General Certificate of Education X-148b
 General Motors Corporation VII-303a
 General Post Office IV-327b
 General Strike, British (1926), VII-450b
 General Stud Book, of thoroughbred horses, IX-253a
 generator, electric, VIII-130a; 'cascade generator', VIII-209a
 genes, of body cells, XI-41b
 Genesis, book of the Bible, I-68b
 genet, civet, mammal, II-87b
 genetics: animal, VI-428a; plant, VI-337a; *see also* heredity
 Geneva, Switzerland, III-181a; under Calvin, V-69b
 Geneva Bible XII-460a
 Geneva Convention (1864) X-361a
 Genghis Khan (1162-1227), Mongol emperor, V-186a
 Genius, guardian spirit, Roman religion, I-453b, 201b
 Genoa, port, Italy, III-181b; *map* III-160
 Genre Painting XII-166a
 gentian, plant, II-4b; Index p. 67
 Gentiles (non-Jewish peoples) V-352b
 Gentleman's Magazine V-248b
 Gentleman Usher of the Black Rod X-195a, 379a
 'gentles', maggots, II-160a
 Geoffrey of Monmouth (1100?-1154), English chronicler, I-37a
 Geography, astronomical treatise by Ptolemy, V-374a
 Geology III-182a; classification of rocks, III-377a; evidence of evolution, I-165a; rock formation, III-374b
 Geometric period of English architecture XII-81a
 geometrid moth II-254b; caterpillars, II-332b
 Geometry VIII-186a

- George I (1845–1913), King of Greece, I-210b
- George, St. (c. 3rd cent.), patron saint of England, V-188b; I-145b; Index p. 135a; painting by Mantegna, V-290
- George III (1738–1820), King of England, V-186b; beginning of the party system, X-329b
- George IV (1762–1830), King of England, V-187b
- George Cross X-262a; *illus.* X-261
- George Inn, Southwark, London, IX-345a
- George Medal X-262a
- Georgetown, *port*, British Guiana, S. America, III-208a; *map* III-415
- Georgia, *republic*, U.S.S.R., III-183b; *map* III-75; folk dances, IX-232a
- Georgia, *state*, U.S.A., III-453a; *map* III-451
- Georgian Architecture XII-167a, 21a; ashlar walls, XI-481a; balconies, XI-17b; chimneys, XI-64a; doors, XI-113b, 114b; staircases, XI-420b; windows, XI-491a
- Georgian furniture XI-194b
- Georgics, Virgil, V-461a
- geranium, plant, VI-245b; II-380b, 167b; Index p. 65
- gerfalcon, bird of prey, II-140a
- Géricault, Théodore (1791–1824), French painter, XII-389b, 390a
- German architecture XII-169a
- German Art XII-169a
- Germanic Languages IV-169a, 219b
- German Literature XII-172b; Faust theme, XII-146a
- German measles XI-251a
- 'German Requiem', Brahms, V-54b
- Germans I-189a
- Germany III-184a; air force, X-9b, 50b; army, X-35a, 430a; medieval city states, X-88a; coal production, VII-117b, 118a; colonies, X-106b, 62a; in First World War, X-159a; Hanseatic ports, VII-220b; law, X-236a; local government, X-299b, 52b, 435b; in the Renaissance, I-403a; Second World War, X-402b; unification, I-189b; trade unions, VII-454b; university life, X-480a; wine production, VII-472a
- germination of seeds II-348a
- germ infection, in surgery, XI-7b
- germs, *see* bacteria, virus
- Gerritszoon, Gerrit, *see* Erasmus
- Gershwin, George (1898–1937), American composer, XII-312b
- Gertrude of Nivelles, St., Index p. 135a
- Gestalt psychology XI-372b
- Gestapo, police, X-323a
- gestation period, animal reproduction, II-344b; Index p. 144
- Gethsemane, orchard on Mount of Olives, Index p. 126b
- Gettysburg; battle (1863), X-20a
- gewgaw (Jews' harp) IX-299b
- Geyser, natural spring, III-188a
- Gezira, *district*, Sudan, N. Africa, III-424a
- gharial, crocodile, II-107b
- Ghata, Western, highland of India, III-228a–230a, 56b
- Ghent, Belgium, I-68a
- gherkin, cucumber, VI-105a
- Ghetto (Jewish quarter of city) I-191b
- Ghezzi, Pietro (1674–1755), Italian caricaturist, XII-58b
- Ghiberti, Lorenzo (1378–1455), Italian sculptor, XII-216b, 52a
- Ghilzai, tribe, Afghanistan, I-3a
- Ghirlandaio (1449–94), Italian painter, XII-462b
- ghost fly (greenhouse white-fly) VI-27b
- ghost moth II-419b
- Ghosts I-192b
- Ghosts, Ibsen, V-236b
- Giants I-194a
- Giants, in Greek mythol., Index p. 139b
- Giants' Causeway, N. Ireland, III-189a
- gibbon, ape, II-23a
- Gibbon, Edward (1737–94), English historian, XII-193b
- Gibbons, Grinling (1648–1721), English woodcarver, V-189a; VII-224a
- Gibbons, Orlando (1583–1625), English composer, XII-17a; IX-304a
- Gibraltar, S. Spain, III-189b; *map* III-160
- Gide, André (1869–), French writer, XII-165b
- Gideon, Hebrew warrior, Index p. 126b
- Gielgud, Sir John (1904–), British actor and producer, IX-403a
- gila monster, lizard, II-251a
- Gilbert, Sir Humphrey (c. 1539–83), English explorer, V-189b
- Gilbert, Sir William (1836–1911), verse writer and librettist, V-432a; XII-92a
- Gilbert, William (1540–1603), writer on magnetism, III-270b
- Gilbert Is., Pacific Ocean, III-113a; I-314a; *map* III-323; *see also* Pacific Islands
- Gilbert and Sullivan operas V-432a
- Gilchrist, Percy, 19th-cent. chemist, VIII-239a
- Giles, St., Index p. 135a
- Gilgamesh, Epic of, Babylonian myth, I-62a
- Gill, Eric (1882–1940), British sculptor, XII-442b
- gill, breathing organ, II-148a, 349a, 383a; *illus.* II-147
- gillie, gamekeeper, Scotland, IX-179b
- gill-net, fishing net, VI-160a
- Gillray, James (1757–1815), caricaturist, XII-59a; *illus.* IV-337
- gilly-flower VI-71a
- gilt-edged securities, government loans, X-283a
- Gilyak tribe, Siberia, U.S.S.R., I-440a
- gimbal, suspension, VIII-22a
- gimbals, of gyroscope, VIII-193a
- gimlet, tool, *illus.* VII-82
- ginger, spice crop, VI-423b
- Ginner, Ruby (b. 1886), dancer, IX-265b
- ginning, in cotton industry, VII-140a
- gin traps VI-453a
- Giorgione (c. 1477–1501), Italian painter, V-189b
- Giotto (c. 1266–1337), Italian painter, V-190b; XII-214b, 153b
- Giovanni de Bologna (1524–1608), Italian sculptor, XII-52b; *illus.* XII-51
- Giovanni di Paolo (1403–82), Siennese painter, XII-421a
- gipsies, *see* gypsies
- gipsy moth II-443a, 442a
- Giraffe II-177b; *illus.* II-71
- girders, building, VIII-421a
- girdle cakes XI-399b
- Girgenti, Sicily, III-404a
- Girl Guides IX-253b
- girls' clubs IX-140a
- Girls' Friendly Society IX-140b
- Girls' Life Brigade IX-140b
- Girtin, Thomas (1775–1802), British painter, XII-473b
- Girton College, Cambridge, X-68a
- gizzard, digestive organ of fowl, VI-148b
- glacé kid leather VII-425b
- Glaciation (ice action on earth) III-191a
- Glacier III-192b
- Glacier National Park, Montana, U.S.A., III-380b
- gladiator, sword-fighter, IX-255b
- Gladiatorial Games, of ancient Rome, IX-255b
- gladiolus, plant, VI-60a; family, Index p. 69
- Gladshiem, palace, Norse mythol., I-345a
- Gladstone, Herbert John, Viscount (1854–1930), British statesman, X-355b
- Gladstone, William Ewart (1809–98), British statesman, V-191a
- Gladstone bag XI-211a
- Glaisher, James (1809–1903), balloonist, IV-36a
- Glamorganshire, in co. cricket, IX-158b–159b
- gland, of steam engine, VIII-407a
- glanders, animal disease, VI-19b
- glands, of human body, XI-138a; sweat glands, XI-407b
- Glasgow, Scotland, III-194b; *map* III-396
- Glasgow University X-389b
- glass fibre VII-430b
- glass, table, XI-435b; *illus.* VII-204
- Glasshouses VI-200a; alpine house, VI-383a; fumigation, VI-249b, 27b
- glasshouse red spider mite VI-290b
- Glass-making VII-204a; glass blowing, *illus.* VII-147
- glass snake, lizard, II-393b
- glasswort, plant, II-375b; Index p. 70
- Glastonbury, Somerset, archaeological discoveries, I-284a
- Glauber, Johann Rudolph (1604–70), German chemist, VII-5b, 6a
- glaucoma, eye disorder, XI-151b
- glaze, pottery, VII-352a
- glee, song, XII-428b
- gleemen, wandering entertainers, IX-445b
- glen, valley, III-461a
- Glendower, Owen (c. 1354–1416), Welsh national leader, V-193a
- Glider IV-171b, 156a
- Gliding IX-256b
- globe artichoke VI-34b
- globe, terrestrial, *map*, IV-253a

- globe-fish II-326b
globigerina, single-celled creatures, III-326b; *illus.* II-335
glockenspiel, percussion instrument, IX-365b
Glorious First of June, Battle of (1794), V-231a
'glory hole', mine, VIII-300b
Gloucester, Humphrey, Duke of (1391-1447), IV-46b
Gloucester cathedral XII-178a, 465a
Gloucestershire, in co. cricket, IX-158b
Gloucestershire Regiment X-366b
Gloves XI-203a
Glow-worm, insect, II-178a
gloxinia, greenhouse plant, VI-217a
Gluck, Christoph Willibald von (1714-87), Bavarian composer, V-194a; XII-310b
glucose XI-336b; in blood, XI-99b; chemical production, VII-419b
glue VII-346b
gluten, substance in flour, XI-36b
glycogen, substance producing sugar in blood-stream, II-286b
gnat (mosquito) II-275b
Gneisenau, August Wilhelm Anton, Graf Neithardt von (1760-1831), Prussian soldier, X-35a
Gneisenau, German cruiser, X-298a
gneiss, rock, III-380a
Gniezno, Poland, I-368b
gnosticism, religious belief, I-472a
gnu (wildbeest), antelope, II-17b
Goat, wild, II-178b
Goat and Leopard Moths II-179b
goatfish, mullet, II-286a
goat-hair VII-220a
Goats, domestic, VI-203b; tropical, VI-23b
goatskins VII-226a; VI-23b
Goat Society, the British, VI-204a
goatsucker (nightjar), bird, II-292a
Gobelins tapestry VII-426b
Gobi desert, Central Asia, III-295a, 128b; *map* III-21
goblins I-169b, 162b
Goby, fish, II-180a; blind goby, II-49a
God I-196b, 471a; in Christian religion, I-120a, 198b; in Islam, I-259b, 198b; in Jewish religion, I-198a, 278b, 220a; Jehovah, I-270b; *see also* religion
Godfrey of Bouillon, leader of First Crusade, 1095, I-132b
Gods of Greece and Rome I-200a, 197a; *table*, Index p. 137
gods, pagan, I-197a; spirits, I-452b, 336b; animism, I-27b; Mithraism, I-322a, sky-god, I-441b; sun-god, I-460a
Godwin, William (1756-1836), philosopher, X-28b; V-414a
godwit, sandpiper, bird, II-452b
Goes, Hugo van der (c. 1440-82), Flemish painter, XII-151a
Goethe, Johann Wolfgang von (1749-1832), German poet, V-194b; XII-172b; *Faust*, XII-146a
Gog and Magog, typical enemies of the Messiah, Index p. 126b; *illus.* I-195
Gogh, Vincent van (1853-90), Dutch painter, XII-354a, 239a, 144a; *illus.* XII-439
Gogol, Nikolai (1809-52), Russian writer, XII-395b
goitre, gland disorder, XI-139a, 186b, 305b
Gokstad, Viking ship, IV-477a
gold VII-210b; III-283b; alchemists' search for, VII-98a; assaying, VII-21a; distribution, *map* III-284
Gold-mining VII-210b
Gold and Purple Moths II-180b
Gold and Silver Work VII-207b; gold-plating, hall-marks, VII-22a; *illus.* VII-21; Sheffield plate, VII-385b
Gold Coast, territory, W. Africa, III-208b, 3b; *map* III-5; government, X-102a; people, I-39b
Goldcrest, warbler, bird, II-180b
Golden Arrow, train, IV-172a
Golden Bough, *The*, Sir James G. Frazer, XII-194a
Golden City (Samarkand) III-460b
golden eagle II-127b
Golden Fleece, Greek legend, I-208a; VII-211a
Golden Fleece, Order of the, X-188a
Golden Gate Bridge, San Francisco, IV-172a
golden-greenbottle, blowfly, II-50b
Golden Hind, ship, IV-173a
Golden Horde, Tartar, I-467b; *map*, Index p. 53
Golden Horn, Istanbul, Turkey, II-240a
golden orfe, freshwater fish, VI-479b
Golden Road, Asia, IV-174a
Golden Treasury of Songs and Lyrics, Palgrave, XII-18b
goldfinch, bird, II-144b
goldfish II-75a; IX-19a
Goldoni, Carlo (1707-93), Italian dramatist, XII-91a, 220b
Goldsmith, Oliver (1728-74), Irish writer, V-195b
goldsmith bankers VII-32a, 29b
Goldsmiths' Company VII-106b, 208a
gold standard X-124a; VII-37a
gold-tail moth II-443b
Golf IX-258a
Golf, History of, IX-260b
Golgotha, place of Christ's crucifixion, Index p. 126b
Goliath, giant, I-194a; V-127a; Biblical reference, Index p. 126b
Goliath beetle II-82a
Gomorrah, *see* Sodom and Gomorrah
Gondola IV-174a
gong, percussion instrument, IX-366b
gonorrhoea, venereal disease, XI-469b
Good Friday I-123a; IX-286a
Good King Henry, plant, Index p. 70
Goods Train IV-174b, 240a; marshalling yards, IV-259a
Goodwill, in business, VII-213b
goose, *see* geese
gooseberry VI-109a; II-168b, 159b
goosefoot, plant, Index p. 70
goosegrass, plant, Index p. 67
gopher, rodent, mammal, II-354b; destructiveness to wheat, VI-475b
goral, antelope, II-83b
Gorboduc, 16th-cent. English tragedy, XII-108b
Gordon, Charles George (1833-85), British soldier and colonial administrator, V-196b
Gordon Highlanders regimental badge, X-366a
Gordon Riots (1780) X-324a
gorge, primitive device used in fishing, VI-155a
gorge, type of valley, III-461b
gorget, armour, X-38a; *illus.* X-37
Gorgons, monsters, Greek mythol., I-335a; Index p. 139b
gorilla, ape, II-22b
Gorki (Nijni-Novgorod), U.S.S.R., III-320b, 386a; *map* III-459
Gorky, Maxim (1868-1936), Russian writer, XII-396a
gorse, shrub, II-323b, 380b; Index p. 68
goshawk, bird of prey, IX-210a
Gospels I-421b, 70a
Gota Canal, Sweden, V-440b
Gothic architecture XII-174b; arch, XII-20b; Chartres cathedral, XII-64b; vaulting, XII-464a; *illus.* XII, opp. p. 17
Gothic Art XII-174b; English, XII-80b, 48a; *illus.* XII-82 and opp. p. 17; French, XII-160b; German, XII-169b
Gothic language IV-169a
Gothic Revival (18th-19th cents.) XII-180a, 233b
Gothic script IV-181a
Goths, early Germanic peoples, I-202a
Gottland Is., Baltic Sea, III-427b
gouache, painting method, XII-327a
gouge, tool, *illus.* VII-82
Gough Map, of England, IV-251b
goulash, Hungarian stew, XI-422b
Gounod, Charles François (1818-93), French composer, XII-311b
gouramie, labyrinth fish, II-233a
Gourd Vegetables VI-205b
Government X-174b; anarchist theory of, X-29a; bureaucracy, X-64a; democracy, X-129a; federation, X-150b; totalitarianism, X-453b; *see also* constitution
Gower, John (1330-1408), English poet, XII-8b
Goya, Francisco de (1746-1828), Spanish painter, V-197b; XII-351a; *illus.* XII-246; IX-105
Goyen, Jan Josephsz van (1596-1656), Dutch painter, XII-117a
Gozo, I., Mediterranean Sea, III-272b, 273a; I-293a
grab, card game, IX-114a
grab, of crane, VIII-278a
grace, days of, financial, VII-44a
Grace, William Gilbert (1848-1915), English cricketer, V-198a; IX-162a
Grace Abounding to the Chief of Sinners, Bunyan, V-62a
Grâce Dieu, ship, IV-388b
Graces, in Greek mythol., Index p. 139b
grackle, bird, II-408a
Grading-Machines, for farm crops, VI-206b
Graf Spee, German battleship, X-123a
grafting, plant, VI-343a; fruit trees, VI-181b

- Graham, James, Marquis of Montrose (1612-50), V-317b
- Graham, W. W., 19th-cent. British mountaineer, IX-333a
- Grahamland, Antarctic, III-164b
- Graill, the Holy, Arthurian legend, XII-29b
- 'grain', measure, IV-263b
- grain drying VI-224b
- gramineae, plant family, Index p. 71
- grammar IV-221a
- Grammar schools X-139a, 142b; entrance examinations, X-148b
- gramme, measure, IV-264b
- Gramophone IX-262a; records, VIII-400a
- Granada, Spain, III-195b; *map* III-160
- Grand Alliance (1701) V-294b
- Grand Canyon, Colorado, U.S.A., III-100b
- Grande Dixence, La, dam, Switzerland, VIII-103b
- Grand Jury X-220a
- Grand Liverpool Steeplechase (Grand National Race) IX-263b
- Grand Military Gold Cup, horse-racing, IX-292a
- Grand National Race IX-263b
- Grand Prix, motor-car races, IX-327a; motor-cycle races, IX-329a
- Grand Remonstrance (1641) X-97a
- Grand Union Canal IV-82b; Wolverton aqueduct, *illus.* VIII-61
- granite, rock, III-378a; as building material, VIII-270a; dressing, VII-414b; quarrying, VII-416a
- Gran Sasso, peak, Apennine mts., Italy, III-241b
- Grant, James, Col. (1827-92), explorer, IV-144b
- Grant, Ulysses Simpson (1822-85), American general, V-198b
- Granth Sahib, Sikh sacred book, I-441a
- grant-in-aid, local government, X-246a
- grapefruit VI-90a, 88a; II-168b
- grape-ivy, house plant, VI-246a
- Grapes VI-207b; II-168b
- grape-shot X-294b
- Graphite VII-214a; pencils, IV-496a
- graphology (analysis of handwriting) IV-182a
- Graphs VIII-190a
- Grass-drying VI-209a
- Grasse, France, perfume industry, VII-337a
- Grasses II-181a; bamboos, VI-39a; family, Index p. 71
- Grasses, farmland, VI-210a
- Grasshopper and Locust, insects, II-183a
- Grassland, for farming, VI-212a, 66, 133a
- Grasslands, of world, III-196a
- Grass-snake II-184a
- Grass-vener Moths II-184b
- Gravel, stone, III-199a
- Gravelines, Battle of (1588), IV-31b
- Graves's disease XI-305b
- Gravitation III-199a, 417b; effect of gravity on plants, II-284a
- gravity, specific, of substances, III-125a
- gray XI-396b
- Gray, Thomas (1716-71), English poet, XII-128a, 308a
- grayling, butterfly, II-55a, 13b
- Gray's Inn, London, X-237a
- Great Barrier Reef, E. Australia, III-200b
- Great Bear (Ursa Major), constellation, III-109a; *illus.* III-107
- Great Bible (1539) XII-459b
- Great Britain: air force, X-376b; army, X-39a; coinage, VII-123a; constitution, X-63a; crown, X-120a; dominions, X-61a, 431b; economic history, VII-180b; education, X-140b; farming distribution, VI-132b; Index p. 80; industries, distribution, *map* VII-272; mining, VII-297a; navy, X-381a; overseas trade, VII-324a; ship-building, VII-388a; textile industries, VII-142b, 485b; trade unions, VII-448a; *see also* British peoples; England; Ireland; Scotland; Wales
- Great Eastern, steamship, IV-175b
- Great Encyclopaedia of China, I-112b; XII-129a
- Great Exhibition (1851) VII-183b
- Great Fire of London (1666) X-158b
- Great Harry (King Henry VIII's ship) IV-176b; X-293b
- Greathead shield, tunnelling, VIII-467a
- Great Lakes, Canada/U.S.A., III-201b; *map* III-318
- Great Mosque, Mecca, Arabia, III-16a
- Great Plain, U.S.S.R., III-458a
- Great Plains, U.S.A., III-453b
- Great Pyramid, Egypt, I-156b; XII-370b
- Great Salt Lake, U.S.A., III-202a; *map* III-451
- Great Seal of British Crown IV-395b; X-240b
- Great Tom, bell, Oxford, IV-415b
- Great Trek, of Boer farmers, I-442a
- Great Wall of China III-202b
- Great West Road IV-41a
- greaves, armour, X-37a
- Grebe, bird, II-185a; feather hunting, VI-145b
- Greco, El (c. 1546-1614), Spanish painter, V-199b; XII-431b; forgeries, XII-158b
- Greece III-204a; *map* III-160
- Greek Anthology, of poetry, XII-17b
- Greek architecture XII-182a, 316a; *illus.* XII, opp. p. 17; Acropolis, Athens, XII-3a; III-33b; I-470b; *illus.* I-203; use of marble, VII-277b; ornament, *illus.* XII-320
- Greek Art XII-181a, 83a; painting, *illus.* XII-195, 184; vases, *illus.* XII-27, 181, 101; influence on Europe, XII-84b; *see also* Greek sculpture
- Greek Civilization I-202b; athletics, IX-31b; city states, X-87a; coinage, VII-121b; colonies, X-103a; democracy, X-129a; dress XI-86b; education, X-137b, 475b; law, X-234b; numerals, IV-113b; Olympic games, IX-347a; philosophy, I-206a; political thought, I-205a; religion, I-197a, 200a; sea power, X-394b; ships, IV-98b; trade, VII-443a; warfare, X-227b, 37a, 398a; position of women, XI-159b
- Greek civilizations: Athens, III-34a; V-357b; Sparta, I-449b
- Greek Dancing IX-264b
- Greek Drama XII-185b, 456b; I-207a; acting, IX-5b; comic actor, *illus.* V-16; theatre, IX-461b; ritual drama, I-405b
- Greek fire, medieval weapon of warfare, IX-227a
- Greek gardens VI-194a
- Greek gods I-200a; Index p. 137
- Greek Heroes I-207a; Index p. 137
- Greek Language IV-177a; 218a; alphabet, IV-23a, 24a
- Greek Literature XII-187a; I-419b; elegy, XII-127a; epigram, XII-135a; ode, XII-307a; pastoral, XII-334a
- Greek music XII-291a
- Greek Myths I-208b; gods, I-200a; heroes, I-207a; Index p. 137
- Greek Orthodox Church I-348a
- Greek philosophy I-206a
- Greeks I-210a; of Byzantine Empire, I-88a; national dress, XI-150a; I-211a; *illus.* XI, opp. p. 368
- Greek sculpture XII-83b, 181b, 183b, 440b; Elgin marbles, XII-128a; Venus de Milo, XII-467a; Victory of Samothrace, XII-472a
- Greek temples I-470b; XII-182a; of Acropolis, III-33b, 3a; Olympia, XII-309a
- Green, W. S. (1847-1919), mountaineer, IX-333a
- greenbottle, blowfly, II-50b; as sheep pest, VI-406a
- Greene, Maurice (c. 1694-1755), English composer, XII-398b, 17b
- greenfinch, bird, II-144a
- greenfly (plant louse) II-23b; as plant pest, VI-25b
- greengage plums VI-347b
- Greengrocery VII-214b
- greenheart wood VII-223b
- Greenhouse Plants VI-215a
- greenhouse white-fly (ghost fly) VI-27b, 327b
- Greenland III-205b; Eskimoes, I-162b
- green manures VI-279a
- greensand, stone, III-391b
- green scale, insect pest, VI-466a
- greenshank, bird, II-452a
- green tea VII-429a
- Greenwich: Palace, X-380b; Royal Naval College, X-431a; Royal Observatory, IV-289a
- Greenwich armour X-39a
- Greenwich Mean Time (standard time) III-67b
- Greenwich Pensioner, *illus.* X-317
- Greenwich Transit Telescope III-68a
- Gregorian chant XII-345b, 346a
- Gregory the Great (c. 540-604), pope, V-200b; Index p. 135b
- Gregory VII (c. 1020-85), pope, I-131b
- grenade, explosive, X-58a
- grenadier, soldier, X-471b; *illus.* X, opp. p. 48
- Grenadier Guards, regimental badge, *illus.* X-366
- Grendel, monster, Scandinavian legend, XII-42b

- Grenfell, George (1849–1906), British missionary and explorer, I-64b
 Grenville, Sir Richard (1542–91), British admiral, IV-361a; V-380a
 Gresham's Law, money, X-271b
 Greta Green, Scotland, marriages, X-393b; XI-296b
 Grey Friars (Franciscans) I-187a
 greyhen, game-bird, II-187a
 greyhound, dog, IX-191a, 152b; *illus.* IX-193; Italian, IX-194b
 'Greyhound Derby', greyhound racing event, IX-268a
 Greyhound Racing (Track) IX-266b; betting, IX-59b
 grey lag goose II-176b
 grey speck, disease of oats, VI-37b
 grey squirrel II-405a
 Griboyedov, Alexander (1795–1829), Russian writer, XII-395b
 grid-bias battery, radio, VIII-359a
 gridiron pendulum VIII-82a
 grids, electrodes, of thermionic valves, VIII-446b–448a
 Grid System, electricity, VIII-191a
 grid system of identification, maps, IV-257a
 Grieg, Edvard Hagerup (c. 1843–1907), Norwegian composer, V-201b
 Grierson, John (1898–), British film director, IX-220a
 Griffin, fabulous creature, I-211b; *illus.* XII-213
 Griffith, David Wark (1875–1948), American film director, IX-130a
 Grilling XI-204b, 82a
 grilse (salmon about to spawn) II-360b; grilse-kelts (salmon after spawning), II-360b
 Grimaldi, Joseph (1779–1837), English clown, V-202a; IX-139a
 Grimes Graves, Norfolk, VII-92b
 Grimm, Jacob (1785–1863), Wilhelm (1786–1859), collectors of fairy tales, V-202b
 grinding, metal, VIII-262b; cutlery, VII-152b
 Grisi, Carlotta (1819–99), ballet dancer, IX-48a
 grizzly bear II-32b
 groat, coin, VII-124a; *illus.* VII-123
 Grocers' Company VII-216a, 106b
 Grocery and Provisions VII-216a
 Grock (1880–), clown, IX-139b
 grosbois, musical instrument, IX-340a
 Grote, George (1794–1871), historian, XII-194a
 Grotius, Hugo (1583–1645), Dutch scholar and jurist, V-203a
 ground ivy, Index p. 68
 Groundnuts VI-217b
 groundsel, plant, Index p. 71
 ground squirrel (American chipmunk) II-260b
 grouper, fish, II-372a
 Grouse, game-bird, II-185b; as food, XI-363b, 364b
 grouse shooting IX-249b; season, VII-353b
 'growler', horse-carriage, IV-443b
 growth, human, XI-283b; bone growth, XI-30a
 Growth of Animals II-187a
 Growth of Plants II-188b
 groynes, for sea control, VIII-166a
 grubs, white, VI-51b
 Grünewald, Matthias (d. 1528), German painter, XII-171a
 guacharo (oil-bird) II-292a
 Guadalquivir, river, S. Spain, III-419a; *map* III-160
 Guadeloupe, I., West Indies, III-484b
 guanaco (huanaco), llama, mammal, II-252a
 guano, sea-bird manure, VI-279b, 8b
 guard, railway, IV-347a
 Guardi, Francesco de' (1712–93), Venetian painter, XII-467a, 236a
 Guardian, The, periodical, V-3b
 Guardians of the Poor X-334a
 Guarini, American-Indians, I-9a, 351b; languages, IV-27a
 Guatemala, republic, Central America, III-78b; peoples, I-100a
 guava, tropical fruit, VI-463a
 guayule shrub, source of rubber, VI-391b
 gudgeon, fish, IX-15b
 Gudmund, Scandinavian god, I-216a
 guelder rose VI-165b
 Guerrillas X-178a
 Guernsey, Channel I., III-81a
 Guernsey cattle VI-76b; *illus.* VI, opp. p. 80
 Guiana, British, Dutch, French, *see* Guianas
 Guianas, European colonies, S. America, III-207a; peoples, I-487b
 Guicciardini, Francesco (1483–1540), Italian historian, XII-220a
 guide-books IV-463b
 Guided Missiles X-178b
 guides, railway, IV-454a
 Guidon, flag, IV-148b
 Guildhall, London, *illus.* VII-145
 guild-halls XII-368b
 guilds, trade and craft, VII-143a
 Guillaume de Lorris, 13th-cent. French poet, XII-384a
 guillemot, auk, bird, II-26b
 guilloche, ornament, *illus.* XII-320
 guillotine X-72b
 'guillotine', parliamentary procedure, X-3a
 guinea, coin, VII-124a
 Guinea-fowl II-190a
 Guinea-fowl, domestic, VI-219a; as table bird, XI-363b
 Guinea Lands, W. Africa, III-208b; *map* III-5; peoples, I-339b
 Guinea-pigs VI-219b; II-81a; as pets, IX-369b
 Guinevere, Queen, wife of King Arthur, XII-29b
 guitar, string instrument, IX-311b, 321a
 guitar-fish II-385b
 Gujarati, Indian language, IV-199b
 Gujaratis, community of Bombay, India, III-56b
 Gulf Stream, Atlantic, III-324a, 214a, 225a
 gulf-weed, seaweed, III-395a
 Gulliver's Travels, Jonathan Swift, XII-404b; V-436a
 Gulls, sea-birds, II-190b
 gulper eel II-116a
 Gums and Resins VII-218a; in perfumes, VII-337a
 gun barrel VIII-155b
 gun-boring machines VIII-114b
 gun construction X-44b
 guncotton, explosive, VIII-158a, 86b
 gundog IX-192b
 gun harpoon, fishing, VI-485b
 gun-metal VII-7a
 gunner, aircraft, X-56a, 57a
 gunny, sacking cloth, VII-256b
 gunpowder X-43b; VIII-157a, 86b; first use, I-106a
 Gunpowder Plot (1605) V-165a; *illus.* X-462
 guns X-43b; ballistics, VIII-19a; explosives, VIII-156b; history of, X-490a
 guns: naval, X-293a; sporting, IX-437a
 Gunter, E., 16th-cent. surveyor, VI-10a
 gunter rig, sailing boat, IX-424a
 'gunwhales', of boat, VIII-30b
 guppy (millions fish) II-276b; IX-19b; *illus.* IX, opp. p. 32
 Gupta Empire, of N. India, I-240b
 GURKHAS, hill-people of N.E. India, I-246a
 gurnard, fish, II-367b; flying, II-161b
 Gurus, Indian religious teachers, I-225a; of Sikhism, I-440b
 Gustavus Adolphus (1594–1632), Swedish king, V-203b; I-460b
 gut, in digestive system, XI-102a
 Gutenberg, Johannes (c. 1400–68), German printer, IV-334a
 gutta percha tree VI-390a
 Guthrum (9th cent.), King of the Danes, V-10b
 Guy Fawkes' day I-176b; V-165a
 Guy's Hospital, London, X-189b
 Gwydyr Forest, Caernarvonshire, VI-177a
 Gwynn, Nell (1650–87), actress V-85a
 Gyes, mythological monster, I-194a
 Gymkhanas, horse contests, IX-268b
 Gymnastics IX-269a
 Gypsies I-211b; fortune-telling, IX-241b; hog-roasting, XI-17a; gypsies of Hungary, I-234a; language, IV-419a
 gypsum, mineral, III-291b, 261b; crystal, *illus.* III-289; gypsum plasters, XI-357b
 gypsy moth II-442a
 gyro, directional, aircraft instrument, IV-5a
 gyro-compass IV-110b
 Gyroscope VIII-193a
 gyrotiller, cultivator, VI-108b
 haas, spring (Cape jumping hare), II-354b
 Haba, Alois, composer (1893–), XII-270a
 Habakkuk, Hebrew prophet, Index p. 126b
 Habeas Corpus X-181a
 Haberdashers' Company VII-107a
 habitat (natural home of plant or animal) II-11a
 hackling, in linen industry, VII-269a; *illus.* VII-165

- Hackney carriage IV-443a
 Hackney horse IX-288b; IV-327a
 Hadad, Phoenician god, I-354b; *illus.* I-228
 haddock, fish, II-93b; VI-117a
 Hades (Pluto), Greek god, I-200b; Index p. 139b; place of the dead, Greek religion, I-215a
 Hadley, John (1682-1744), British mathematician, III-25b
 Hadramaut, *state*, Arabia, III-16b
 Hadrian (A.D. 76-138), Roman Emperor, V-205a
 Hadrian's Wall V-205a
 haematite, metal ore, VII-251b; VIII-233a
 haemoglobin, in blood, XI-26a
 haemophilia, disease, II-206a
 haemorrhage (bleeding) XI-167b
 haemorrhoids, vein disorder, XI-467b
 Haffner symphony, Mozart, V-324b
 Hafiz of Shiraz (d. 1389), Persian poet, XII-341a
 Hagar, handmaid of Sarah, Old Testament, Index p. 126b
 hag-fishes II-237a
 Haggai, Hebrew prophet, Index p. 126b; I-69b
 haggis, Scottish dish, XI-339a
 Hague, The, Holland, III-210a
 Hague Court X-181b, 216b
 Hahn, 20th-cent. German chemist, VIII-314a
 Hahnemann, Samuel (1755-1843), German physician, XI-224b
 Haifa, *port*, Palestine, III-333a; *map* III-17
 Hail III-211a
 Haileybury College VII-172b
 Haile Selassie (1891-), Emperor of Abyssinia, I-2a
 Hair II-193a
 Hair, Care of, XI-205a
 Hairdressing, History of, XI-206a
 Hairdressing Methods XI-208b
 Hairstreaks, butterflies, II-193b
 hairstyles XI-209b, 206a
 Hair Trade VII-220a; brushmaking, VII-60b
 Haiti, Hispaniola, W. Indies, III-486a; *map* III-485
 hakama, Japanese dress, XI-341a
 hake, fish, II-94a; VI-159a, 156b
 Hakluyt, Richard (c. 1552-1616), geographer, economist, and chronicler, V-205a, 380b
 Hakluyt Society V-205b
 halberd, weapon, X-490a; *illus.* X-489
 Halcyon, in Greek legend, II-231a
 'Halcyon Days' II-231a
 Haleb (Aleppo), Syria, III-430a; *map* III-17
 Hale telescope VIII-437b
 haLevi, Judah (1186-1241), Jewish poet, I-276b
 half-life, of radioactive isotopes, VIII-350b
 half-timber houses VII-80b
 half-tone block, printing, VII-364a
 halibut, fish, II-152b
 Halicarnassus, mausoleum, XII-475a
 Halifax, Nova Scotia, Canada, III-69b
 Halifax, Yorks, wool industry, VII-486a, 487a
 hall XI-239b
 Hall, Ben, 19th-cent. bush-ranger, X-65b
 Hallam, Arthur Henry (1811-33), English writer, V-442a
 Hallé concerts IX-147b
 Halley, Edmund (1656-1742), British astronomer, III-105a, 31a; V-337a
 hallmarks, gold and silver, VII-22a; *illus.* VII-21
 Hallowe'en (eve of All Saints' Day), festival, IX-473b
 halma, board game, IX-73a
 halophytes, salt-marsh plants, II-375a
 Hals, Frans (c. 1580-1666), Dutch portrait-painter, XII-114b, 115a; *illus.* XII, opp. p. 352
 ham XI-301b
 Ham, second son of Noah, Index p. 126b
 hamadryad (king cobra), snake, II-91b
 Hambledon Club, cricket, IX-160b
 Hamburg, Germany, III-211b; *map* III-186; Hanseatic League, VII-221a; Merchant Adventurers, VII-289a
 Hamilton, Alexander (1757-1804), American statesman, V-206a
 Hamilton, Emma, Lady (1761?-1815) V-332b
 Hamitic languages IV-403b
 Hamlet, Shakespeare, XII-416a, 457a; filming of, IX-225a
 hammer, tool, *illus.* VII-82
 hammer-beam roof, *illus.* XII-180; VII-81
 Hammerfest, *port*, Norway, I-346b
 'Hammerklavier Sonata', Beethoven, V-37a
 hammer mill, barn machine, VI-42b
 Hammond electric organ IX-337a
 Hammurabi, c. 2000 B.C., Babylonian king, I-21a, 57a
 Hammurabi Code, Babylonian law, X-234b; I-59a, 57a
 Hampden, John (1594-1643), English political leader, V-206a
 Hampshire, *co.*, England, III-157a; county cricket, IX-158b
 Hampton Court Palace X-380b; VII-57a
 hamster, rodent, II-281b; IX-369b
 Han dynasty of China (206 B.C.-A.D. 220) I-107b; art of, XII-75a, 73a
 hand, bones of, XI-31b
 hand, measure, IV-262a
 Handbags and Personal Luggage XI-210a
 Handel, George Frederick (1685-1759), German composer, V-206b; anthems, XII-17b; festivals, IX-341a; oratorios, XII-313a; orchestra, IX-351b; suites, IX-171b
 Handel trumpet, brass instrument, IX-92b
 hand tennis (fives) IX-228a
 Hand Tools, agriculture, VI-220a
 Handwriting IV-180a; German, *illus.* IV-171; science of (graphology), IV-182a
 handy dandy, hiding game, IX-276b
 hangar, aeroplane, VIII-419b
 hanging, capital punishment, X-71b-72b
 hanging valleys III-191b
 Hannibal (c. 247-183 B.C.), Carthaginian general, V-208a
 Hanoi, Indo-China, III-233b; *map* III-87
 Hansard, parliamentary publication, X-182a
 Hanseatic League VII-220b, 289a; Hansa cities, X-88a
 hansom-cab IV-443b
 Hanway, Jonas (1712-86), English philanthropist, X-79b
 Hapsburg (Austro-Hungarian) Empire (13th-19th centuries) I-50b, 230b; Bohemia, I-135b; under Charles V, V-85a; the Netherlands, I-146b; V-486a; War of the Austrian Succession, V-293b; X-486b; *map*, Index p. 54
 Harappa, ancient city, Punjab, India, I-238
 Haratin, peoples of N. Africa, I-426b
 harbour IV-320b, 322b
 Hardanger Fjord, S. Norway, *illus.* III-319
 hard-back beetle, insect pest, VI-466a
 Hard Currency VII-222b
 Hardie, James Keir (1856-1915), pioneer of political socialism in Britain, V-208b
 hardpad, disease of dogs, VI-21a
 hard water XI-484b
 Hardwoods VII-223a; in cabinet-making, VII-74b; seasoning, VII-434b
 Hardy, Thomas (1840-1928), novelist and poet, V-209b
 Hare, rodent, II-194b; Belgian, VI-370b; Cape jumping, II-354b; as farm pest, VI-476b
 hare and hounds, tracking game, IX-471b
 harebell, flower, Index p. 66
 Hare Hunting IX-271a
 Hargreaves, James (d. 1778), British inventor, VII-485a, 240
 haricot beans VI-45a
 Harijan (Sons of God), Gandhi's new name for Hindu outcasts, V-181a
 Harlech castle, Merioneth, Wales, XI-47a
 Harlem, *district*, New York, U.S.A., I-13b
 Harlequin, stage character, IX-272a, 139a
 Harlequinade and Pantomime IX-272a
 Harlequins, rugby football club, IX-417a
 Harlow, Herts., *illus.* X-457
 Harmodius, 6th-cent. B.C. Greek patriot, X-46b
 harmonica, mouth organ, IX-401a
 Harmonica, musical instrument, IX-274a
 harmonics (tones composing musical note) IX-337a; III-411b; of organ, IX-353b
 harmonium, musical instrument, IX-401b
 Harmony, musical, XII-189a
 Harmsworth, Alfred, *see* Northcliffe
 harness, farm horse, VI-242a
 Harold (d. 1066), English king, X-182b

- Haroun Al-Raschid (c. 763–809), caliph of Bagdad, V–210b
- Harp, string instrument, IX–275a; place in orchestra, *diag.* IX–352
- Harper Adams Agricultural College, Newport, Salop, VI–15b
- Harpies, mythological creatures, I–335b
- Harpooning VI–222b
- harpsichord, musical instrument, IX–302b; in orchestra, IX–351b
- harpy eagle II–128a
- harriers, hawks, II–196b
- harriers, hounds, IX–271a
- Harris, I., Outer Hebrides, N.W. Scotland, III–215a; *map* III–396
- Harrison, John (1693–1776), clock-maker, IV–289b, 96b
- harrow, cultivator, VI–107b; *illus.* VI–33
- Harrow Football IX–275b
- Harrow School X–351a; *illus.* X–352
- Harsha, 7th-cent. Indian Emperor, I–242a
- Harte, Francis Bret (1836–1902), American writer, XII–417b
- hartebeest, antelope, II–17b
- hart's-tongue fern II–142b; VI–150a, b
- Harvard University X–477b
- harvest-bug II–269b
- Harvest Festivals I–214a; IX–284b
- Harvesting VI–223b, 142b, 32b; *illus.* VI–7
- Harvestman, arachnid animal, II–195a
- harvest mouse II–280b
- Harvey, Gabriel (1545–1630), friend of Edmund Spenser, V–423a
- Harvey, William (1578–1657), English doctor, discoverer of circulation of blood, V–211a
- Harwell, Berks., atomic energy research establishment, VIII–316a
- Harz Mts., Central Germany, III–186b
- Hasdrubal (3rd cent. B.C.), Carthaginian general, V–208a
- hassapikos*, folk dance, IX–231a
- Hastings, aircraft, X–459b
- Hastings, Battle of, X–182b
- Hastings, Warren (1732–1818), governor-general of India, V–212a; trial, *illus.* X–202
- hatchery, egg-incubating station, VI–360b
- hatchet-fish *illus.* II–115
- Hathaway, Anne, wife of Shakespeare, V–411a
- Hathor, Egyptian goddess, I–160b
- hats XI–212a; hat manufacture, VII–189b
- Hatton, Joseph, deaf-blind, IV–120b
- hauberk, armour, X–37a
- haulage: water, IV–37b; road, IV–277a
- hauling machinery: conveyors, VIII–94a; cranes, VIII–98b; for mining, VIII–304b
- Hausa, peoples of W. Africa, I–338a
- hausfrau* I–190b
- hautbois, wood-wind instrument, IX–487a
- Haüy, René Just (1743–1822), French crystallographer, III–291b
- Havock, H.M.S., X–132a
- Havre, port, France, III–175a
- Hawaii, Pacific Is., III–331a; I–370b–372a; *map* I–350
- Hawaiian guitar (ukulele) IX–312a
- hawfinch, bird, II–144a
- 'Haw-Haw, Lord' (William Joyce, 1906–46), traitor, X–462b
- Hawick, Roxburgh, Scotland, wool industry, VII–486b
- Hawk, bird of prey, II–195b; IX–209b–211a
- Hawke, Edward Baron (1705–81), British admiral, V–213b
- hawker VII–334b, 418b
- hawking, hunting, IX–209b
- Hawkins, Sir John (1532–95), British sailor, V–215a
- Hawk Moth II–197a, 334a; *illus.* II–277
- hawkbill turtle II–440a
- Hawksmoor, Nicholas (1661–1736), English architect, XII–49a; V–454a–455a
- hawkweed VI–114b; family, Index p. 71
- hawthorn, shrub, VI–458a; II–323b
- Hawthorne, Nathaniel (1804–64), American novelist, XII–16a
- Haxey ball-game I–181b
- hay VI–168b, 225a
- Hay-box XI–211b
- Haydn, Franz Joseph (1732–1809), Austrian composer, V–215b; orchestra, IX–351b; quartets, XII–62a; sonatas, XII–424a; symphonies, XII–446a; V–216b
- hay fever XI–3b
- hay-loader, machine, VI–226a
- haymaker, machine, VI–226a, 285b
- Haymaking VI–225a
- 'Hay Wain, The', picture by Constable, V–103b
- Hazaras, tribe of Afghanistan, I–3b
- hazel tree VI–456b, 101b; flower, II–159a; *illus.* II–347; nuts, VI–295b; II–167a
- Hazlitt, William (1778–1830), English essayist, V–216b
- head, structure, XI–30b
- head, resistance, pumping, VIII–342a
- head-hunting I–306, 246b, 85a
- headlights, polarized, VIII–328b
- Headmasters' Conference X–448a
- headstock of lathe VIII–247b
- Headwear XI–212a
- Heal, Ambrose, furniture designer, XI–196b
- health, *see* public health
- Health Centre X–183a
- health departments, of cities, X–349b
- Health (Farm Animals) VI–227a; veterinary courses, VI–16b
- Health Service, *see* National Health Service
- hearing: animal, II–382b, 380b–381b; human, XI–128b
- hearing aids XI–128b
- Heart, animals, II–199a, 49b
- Heart, human, XI–214b
- heart, offal, XI–338b
- heart-urchin, sea-creature, II–378b
- heartwood, of tree, VI–443a
- Heat III–212b; VIII–142b; fuels, VIII–171b; measurement of, VIII–442a; radiation, III–359b; solar energy, VIII–397a
- Heat Engines VIII–196a
- Heath, butterfly, II–200a
- Heathcoat, John (1783–1861), inventor, VII–262b
- heathers VI–323a; Index p. 66
- heath plants II–200b
- Heathrow, London Airport, IV–19a, 176
- Heaths and Moorlands II–200b
- Heating VIII–197b; heat pump, VIII–201a
- Heating, History of, XI–216a
- Heating Systems, Domestic, XI–218b
- Heat Pump VIII–201a
- Heat Treatment, of metals, VIII–202a
- Heaven I–214b; *nirvana*, I–84a
- heavyweight athletic events IX–36b
- Hebe, Greek goddess, I–201a
- Hebrew Civilization I–217b; V–238b, 243b; law, X–234b; I–275b; sanctuaries, I–469a
- Hebrew Language IV–183a
- Hebrew Myths I–220b
- Hebrew prophets I–386a, 220a; Isaiah, V–238b; Jeremiah, V–243b
- Hebrews, *Epistle to the*, Index p. 126b
- Hebrew Sacred Books I–421a
- Hebrides, Is., W. Scotland, III–215a
- Hebrides, *The*, (*Fingal's Cave*) overture, Mendelssohn, V–306b
- Hecate, goddess, Greek mythol., Index p. 139b
- Hector, character in Greek mythol., XII–195a; I–208a
- Hecuba, Queen, Greek legend, Index p. 139b
- Hedda Gabler, Ibsen, V–237a
- Hedda stone, Peterborough, Northants., XII–451b
- Hedgehog II–201b; VI–489b
- Hedgerows II–202b
- hedges VI–228b; garden, VI–191a; as land boundaries, VI–56b
- hedge sparrow II–427b
- Hedging, Ditching, and Walling VI–228a; hedging tools, VI–220b; *illus.* VI–222
- Hedin, Sven Anders (1865–), Swedish geographer and explorer, I–462a
- Hegel, George Wilhelm Friedrich (1770–1831), German philosopher, V–247a
- Heidelberg, fossil remains of prehistoric man, I–183b
- Heidrun, goat, Norse mythol., I–343a
- heifer, young cow, VI–75a
- height measurement VIII–425b; by trigonometry, VIII–463b
- Heimdal, character in Norse mythol., I–343a
- Heine, Heinrich (1797–1856), German poet, XII–174a
- Heisenberg, Werner Karl (1901–), German physicist, III–357a
- Hel, goddess of underworld, Norse mythol., I–345a
- Helen, Euripides, V–161a
- Helena (3rd–4th cents. A.D.), mother of Constantine the Great, V–104b
- Helen of Troy, Index p. 140a
- Hele Stone (Sun Stone), Stonehenge, I–456b
- helical spring VIII–405b
- helicon, musical instrument, IX–94a

helicopter IV-377a; *illus.* X-361
 Heligoland, I., in North Sea, III-395b
 Heligoland Race IX-346b
 Heliogabalus (A.D. 204-22), Roman Emperor, XI-353a
 heliograph, signalling instrument, IV-233a
 Heliopolis, city, ancient Egypt, I-159a
 Helios, Greek god, I-460a; *illus.* I-333
 heliotrope, garden flower, VI-46b
 helium, gas, III-426a, 37a
 helix, of screw, VIII-381b
 Hell I-222a
 hell-bender, amphibian creature, II-359b
Helicat, aircraft, X-292a
 Hellenes (Greek-speaking peoples of ancient world), I-224b
 Hellenistic age, of Greek civilization, XII-185a, 188a
 Hell Gate Railway Bridge, New York, IV-65a
 helmet, armour, X-37a
 Helmont, Johann, Baptista van (c. 1577-1644), Belgian chemist, VII-98b
 Héloise (d. 1163) V-1a
 helots, class in Greek state, I-204b
 Helpmann, Robert (b. 1911), ballet dancer, IX-49a; *illus.* IX-45, 46
 Helsinki (Helsingfors), Finland, III-165b; *map* III-160
 Helston Furry dance, Cornish folk dance, IX-238a
 Helvetia (Switzerland) I-462a
 Helvetii, Alpine tribes, I-462a
 Helwys, Thomas (c. 1550-1616), Baptist divine, I-64b
 hemicycle, sundial, VIII-463b
 Hemingway, Ernest (1898-), American novelist, XII-16b
 hemlock, plant, II-324a; Index p. 65
 hemp, fibre plant, VI-153a; VII-430a, 377b
 henbane, plant, Index p. 66
 henequen, fibre plant, VII-377a
 Henley regatta, boat-racing, IX-75b-77a
 Henry, O. (1862-1910), American writer, XII-417b
 henry, unit of measurement, VIII-274a
 Henry I (1068-1135), King of England V-14a
 Henry II (1133-89), King of England, V-218a
 Henry III (1207-72), King of England, V-317a
 Henry IV (1367-1413), King of England, V-193a
 Henry IV of France (Henry of Navarre 1553-1610) V-220b
 Henry V, (1387-1422) King of England, X-200b
 Henry VIII (1491-1547), King of England, V-218b; shipbuilding and navigation, IV-92b, 176b; parliament, X-313a; Reformation, I-124a
 Henry of Navarre (Henry IV of France 1553-1610) V-220b
 Henry the Navigator (1394-1460), Portuguese prince, V-222a
 Henslow, John Stevens (1796-1861), British botanist, V-124b
 Hephaestus, Greek god, Index p. 140a

Hepplewhite, George (d. 1786), English cabinetmaker, VII-76b; XI-51b
 Hera, Greek goddess, I-200b, 207b; Index p. 140a
 Heracles (Hercules), hero, Greek mythol., I-207a; Index p. 140a
 Heracles (Hercules) beetle, insect, II-82a; *illus.* II-39
 Heraclides (388-315 B.C.), astronomer, III-23a
 Heraldry IV-184a; flags, IV-148a
 heralds IV-327a
 Herbaceous Border VI-231a
 herbal drugs XI-125a
 Herbert, George (1593-1633), English poet, XII-258b
 Herbert, Sidney, 1st Baron (1810-61), British statesman, V-339b
 herbs II-156a
 Herbs, Garden, VI-233b
 Herbs and Spices XI-221a
 Herculaneum, ancient city of Italy, III-308b
 Hercules (Heracles), hero, Greek mythol., I-207a; Index p. 140a
 Hercules, Pillars of, Gibraltar, III-189b
 Hérédia, José Maria de (1842-1905), poet, XII-430b
 Hereditary Diseases XI-221b
 Heredity II-203b; in plant breeding, VI-336b; in stock breeding, VI-427b
 Hereford cattle VI-78a, 84a; *illus.* VI-77
 heresy, in Christian Church, I-254b
 Hereward the Wake (11th cent.) V-485a
Hereward the Wake, Charles Kingsley, V-260a
 Herm, Channel I., III-81a
 hermaphrodite (animal combining characteristics of both sexes) II-344b, 372a
 Hermes, Greek god, I-201a; *illus.* I-200, 222; Index p. 140a
 'Hermes with the infant Dionysius', statue by Praxiteles, V-371a
 hermit I-38b; *see also* monk
 hermit crab II-103a
 Hernandez, José (1834-94), Argentine poet, I-35a
 Hernia XI-222b
 Hero of Alexandria (1st cent. A.D.), Greek mathematician, VIII-150b
 Hero, priestess, Greek mythol., Index p. 140a
 Herod Antipas, son of Herod the Great, Index p. 126b
 Herod the Great (1st cent. B.C.), King of Judaea, I-271a; Index p. 126b
 Herodias, wife of Herod Antipas, Index p. 126b
 Herodotus (c. 480-c. 425 B.C.), Greek historian, XII-191b; world known to, *map*, Index p. 50
 heroic couplet, verse, XII-470b; V-368a
Hero and Leander, Christopher Marlowe, V-296b
 Heron, bird, II-206a
 Herrick, Robert (1591-1674), English poet, V-223a
 Herring, fish, II-207a; curing and salting, VI-235a

Herring Fishery VI-234b, 156a
Herrnhut, 18th-cent. Protestant settlement, I-328a
 Herschel, Sir William (1738-1822), astronomer, III-26a
 Herschel, Sir John (1792-1871), astronomer, drawing reproduction process, VIII-111a
 Hertfordshire, co. cricket, IX-159b, 163b
 Hertz, Heinrich (1857-1894), German physicist, IV-486a
 Hertzian waves, wireless, *table*, III-359; *see also* wireless waves
 Hertzog, James Barry Munnik (1886-1942), S. African statesman, I-443a
 Herzegovina, region, Yugoslavia, III-494a
 Herzl, Theodore (1860-1904), founder of Zionist movement, I-277b
 Hesiod (8th-cent. B.C.), Greek poet, I-419b
 Hesperides, in Greek mythol., Index p. 140a
Hesperides, poems, Robert Herrick, V-223b
 Hesse hill country, central Germany, III-186b
 hessian, cloth, VII-256b
 Hestia, Greek goddess, Index p. 140a
 heterodyne method, wireless tuning, VIII-206b, 359b
 HETP (hexa-ethyl-tetra-phosphate), insecticide, VI-248b, 250a
 hexameter line, poetry, XII-127a
 Heyden, Jan Van der (1637-1712), Dutch painter, XII-117a
 Heywood, Lancs., cotton industry, VII-142b
 Hezekiah (8th cent. B.C.), King of Judah, V-239a; Index p. 126b
Hiawatha, Longfellow, V-282b
 Hibernation, of animals, II-207b
 hickory wood VII-223a
 hide and seek IX-276a
 Hides and Skins VII-224b; currying, VII-150b; fellmongering, VII-188a; leather industry, VII-264b; tanning, VII-424a
 Hiding Games IX-276a
 hieratic (priests') writing, ancient Egypt, IV-187a
 Hieroglyphics (ancient Egyptian pictorial writing) IV-186a
 High-altitude Flight IV-188a
 High Commission, Court of, X-53b
 High Commissioner, of colonies, X-102b
 High-Commission territory X-102a
 High Court X-184a
 High Court of Justiciary, Scotland, X-391b
 High-frequency Currents VIII-204b
 High German, language, IV-169b
 Highland Britain, geographical division, VI-132b
 Highland cattle VI-78b, 133b
 Highland dances, Scottish, IX-238b, 278b
 Highland Games, Scottish, IX-277a
 Highlands, Scotland, III-397a; Highlanders, I-431b

- High Level Bridge, river Tyne, IV-62b
- High Schools, American, X-22b
- High-speed Photography VIII-207a
- high treason, *see* treason
- High-voltage Particle Accelerators VIII-209a
- Highway Act (1555) IV-368a
- Highway Code IV-380a; road signs, IV-373
- Highwaymen IV-190b; bush-rangers, X-64b
- Highway Trusts (turnpikes) IV-470b
- High Wycombe, Bucks., furniture industry, VII-196b
- hiking IX-479a
- Hill, Octavia (1838-1912) X-197b
- Hill, Sir Rowland (1795-1879), originator of penny post, V-223b
- Hill-climbs, motor contests, IX-279a
- hill-forts, of ancient Britain, I-150b
- Hilliard, Nicholas (c. 1547-1619), English miniature painter, XII-259b
- Himalayas, *mt.*, range, III-216b, 223b; *map* III-229; mountaineering in, IX-333a; passes, IV-281a
- Hinayana, 'the Lesser Way', Buddhist religion, I-82b
- Hindi language IV-199b
- Hinduism, Indian religion, I-224b, 198b; birth ceremonies, I-72a; caste system, I-95b; food rules, XI-297b; hell, I-223a; history, I-239b, 198b; initiation ceremonies, I-253a; sacred books, I-419b
- Hindu Kush *mt.* range, Afghanistan, Asia, III-2b; *map* III-229
- Hindu renaissance, 4th-5th cents. A.D., I-240b
- Hindustani language IV-200a
- Hinnom, valley of, Jerusalem, Palestine, I-224a
- hinny (cross between male horse and female donkey) VI-118a
- hip, fruit of rose, II-358a
- hip-joints XI-32a
- Hipparchus (c. 190-120 B.C.), Greek mathematician and astronomer, III-23b
- Hippocrates (c. 460-357 B.C.), Greek physician, V-223b; XI-302b, 309b
- Hippocratic oath XI-303a
- Hippolyta, legendary Queen of Amazons, I-6a
- Hippolytus, character in Greek mythol., Index p. 140a
- Hippolytus, Euripides, V-160b, 161a
- Hipponax of Ephesus (6th cent. B.C.), Greek poet, XII-187b
- Hippopotamus II-209a; hunting, IX-66b
- Hire-purchase XI-223a; VII-148b
- Hispaniola, *I.*, West Indies, III-484b-486a
- Histories XII-191b
- Hitler, Adolf (1889-1945), leader of German Nazi state, V-224a; I-38a
- Hittites, ancient peoples of Asia Minor, I-228a
- Hiyan, Phoenician god, I-364b
- H.M.I. (Her Majesty's Inspector): of schools, X-268b; of taxes, X-203a
- hoar frost III-177a
- Hoatzin, bird, II-210a
- Hobart, Tasmania, Australia, III-217b; *map* III-41
- Hobbema, Meindert (1638-1709), Dutch painter, XII-236b
- Hobbes, Thomas (1588-1679), English philosopher, V-225a
- Hobbs, Sir John (Jack, 1882-), cricketer, IX-162b
- hobby, bird of prey, II-139b; IX-211a
- hobby-horse, early bicycle, IV-44b
- hock, wine, VII-472a
- Hockey IX-279b
- Hockey, History of, IX-281a
- Hockey Association IX-281b-282a
- Hodmadods, *see* Hottentots
- Hodur, Norse god, I-344b
- hoe, agricultural tool, VI-107a; *illus.* VI-221; mechanical, VI-109a, 8b; primitive, VI-140a
- Hogarth, William (1697-1764), English painter and engraver, V-226b; XII-59a; *illus.* XII-405; XI-2, 110, and opp. p. 48
- Hogg, James (1770-1838), Scottish poet, V-406b
- Hogg, Quintin (1845-1903), philanthropist, X-332b
- Hogg, Thomas Jefferson (1792-1862), biographer of Shelley, V-413b
- Hogmanay, Scottish New Year festival, IX-472b
- hogshead, cask, VII-86b
- hoists, cranes, VIII-98b
- Hokkaido, *I.*, Japan, III-243b; *map* III-245
- Hokusai, Katsushika (1760-1849), Japanese artist, III-178b
- holarctic region, animal distribution, II-11b
- Holbein, Hans (1497-1543), German painter, V-228a; XII-479b; *illus.* VII, opp. p. 32; V-219b; XI-89
- Holiday Camps IX-283a
- Holidays IX-283b; seaside resorts, IX-425a; wakes, IX-478b
- Holinshed, Raphael (d. c. 1580), English chronicler, XII-192b
- Holland III-218b; Church, I-91a; colonial history, X-104a; VII-171a; language, IV-170b, 219b; land reclamation, VIII-246a; law, X-236b; margarine industry, VII-278b; sea-power, X-396a, VII-391b; V-133b; United Provinces, republic, X-369b; Zuider Zee project, VIII-495a; *see also* Dutch
- Hollar, Wenceslas (1607-77), German artist, XII-140a; *illus.* X-91
- holly, shrub, II-323b, 434a
- Hollywood, California, U.S.A., IX-129b; III-266a
- Holman Hunt, William (1827-1910), British painter, XII-360a-361a
- Holmes, Oliver Wendell (1809-94), American writer, III-57a
- Holmes, Sherlock, detective in fiction, V-144b; XII-102b
- Holofernes, general, Old Testament, Index p. 126b
- holothurian (sea-cucumber) II-369a
- Holstein, *province*, Germany, III-395a
- holt, home of otter, II-304b
- Holy City (Jerusalem) III-246a
- Holy Cities, of Islam, III-16a
- Holy Communion, sacrament of Christian church, I-417a, 423b
- Holy Ghost (Holy Spirit) I-120b, 417b, 123a
- Holy Land (Palestine) III-332a; *map* III-17; crusades for possession of, I-131a
- Holy Office, Congregation of the, of Roman Catholic Church, I-407b
- Holy Roman Empire I-230a; struggle with Church, I-263b; V-171a; *see also* Hapsburg Empire
- Holyrood House, palace, Edinburgh, III-149a
- Holy War, the, of Islam, I-260b
- Holy Week, in Christian year, I-123a
- Holywell music-room, Oxford, IX-147b
- Home Guard X-178b
- Home Nursing XI-223b; invalid cookery, XI-263a
- Home Office X-185b
- Homeopathy, system of medical practice, XI-224b
- Homer (c. 8th-7th cent. B.C.), Greek epic poet, V-228b
- Homer, Winslow (1836-1910), American painter, XII-11a; *illus.* XII-15
- Homeric Literature XII-194b; problem of authorship, XII-196a; translation of, XII-460a, 459a
- Home Rule movement, Irish, V-192b; 348b; X-407a
- Homes, *see* alms-house; children's homes; houses; mental hospitals; special hospitals
- Home Secretary X-185b, 268a; royal pardons, X-122a
- homing pigeon IX-373b
- Homo sapiens*, scientific name for man, I-183b; II-88b
- Honduras, Central American republic, III-78a; peoples, I-100b
- Honegger, Arthur (1892-), Swiss composer, XII-366b
- honesty, everlasting plant, VI-127a; Index p. 64
- Honey and Beeswax VI-235b; tropical, VI-24a
- honey-bee II-36a
- honey-buzzard, bird, II-196b
- honeycomb VI-236b; *illus.* VII-49
- honey-dew, secretion of aphids, II-23b
- Honey-eaters, birds, II-210b; feathers used as currency, VI-145b
- honey fungus VI-455b
- honey-pot ant II-20a
- honeysuckle, climbing plant, VI-91a
- Hong Kong, British colony, III-220a
- Honiton lace VII-262a; *illus.* VII-261
- Honolulu, *port*, Hawaiian *Is.*; *map* III-323; leper settlement, V-118b; *see also* Hawaiian *Is.*
- Honorius (A.D. 384-423), Roman Emperor, IX-256b
- Honourable Artillery Company X-367b
- Honours X-186b; peerage, X-316a
- Honshu, *I.*, Japan, III-243b; *map* III-245

Hooch, Peter de (1629–c. 1683), Dutch painter, XII-115a; *illus.* XII-117
Hood, H.M.S., X-122b
Hood, Samuel, Viscount (1724–1816), British admiral, V-229b
Hood, Thomas (1799–1845), English poet, XII-92a
hoodman blind, hiding game, IX-276b
hoodwink, to, origin of word, IX-276b
Hoof, of animal, II-211a
Hooghly, river, N.E. India, III-180a, 65b; *map* III-229
Hooke, Robert (1635–1703), English scientist, VIII-85b, 442a, 81b
Hooke's law VIII-405b
hooks and lines, fishing, VI-161b; *see also* angling
hoop-net, crab-fishing, VI-103b
Hoopoe, bird, II-211a
hop fly (hop-damson aphid) VI-25b
hop kiln VI-238a
Hopkins, Gerard Manley (1844–89), British poet, XII-270b, 430b; V-55b
hop oast, for drying hops, VI-238a
hopper boat, dredging, IV-130b
hop-picking VI-237a; machine, VI-237b
Hoppus cubic feet, unit of timber measurement, VI-446b; Hoppus calculator, VI-446b
Hops VI-236b; in brewing, VII-40b; hop pests, VI-25b, 52a
Hops Marketing Board VI-238b
hop-scotch, street game, IX-448b
Hopton Wood marble VII-278a
Horace (Quintus Horatius Flaccus, 65–68 B.C.), Roman poet, V-230a
Horatius Cocles (6th cent. B.C.), legendary Roman soldier, IV-60b
Horeb, Mount, Index p. 126b
hori, African canoe, IV-84b
horizon, artificial, aircraft instrument, IV-5a
Horizon, periodical, XII-337a
horizontal system, manufacturing, VII-486b
hormones, glandular secretions, XI-138a–140a; as drugs, XI-125b, 126b; plant hormones, VI-344a; II-190a
horn, wind instrument, IX-90a–92a; in orchestra, IX-352a
hornbeam, tree, VI-456b; seed, II-379b
Hornbill, tropical bird, II-211b
hornblende, mineral, III-290b
horned toad, lizard, II-251b
hornero (oven bird) II-304b
Horners' Company VII-107b
hornet, wasp, II-457b
hornet moth II-90a; *illus.* II-89
Horns and Antlers II-212a
horn signals IV-414b
hornworm, caterpillar, II-199a
horoscope (system of forecasting events from the stars) I-45a
Hors d'œuvres XI-225a
Horse, wild, II-212b; evolution of, II-138a; *see also* horses
horse-chestnut tree VI-456a; fruit, II-167a
Horse-fly II-212b
Horse Guards, Royal, X-471a
horsehair VII-220b

horse jumping IX-405b, 292b
horse-mackerel, fish, II-372b
horsemanship IX-405a
horse omnibus IV-72b
horse-power, unit of measurement, VIII-273a, 115b
Horse-racing IX-289b; betting, IX-59b; General Stud Book, IX-253a
Horseradish VI-238b
horse-riding IX-405a; gymkhanas, IX-268b
horse shoeing VI-413b, 242a
Horses, Care of, VI-241a; feeding, VI-243a, 148b; shoeing, VI-413b
Horses, domestic, IX-287a; breaking and training, VI-241a; evolution of, II-138a; length of life, II-187b; thoroughbred horses, IX-253a
Horses, farm, VI-239a, 362a
horses, in warfare, X-73b, 44b; horse armour, X-39a
horseshoe VI-413b
Horseshoe Falls, Canada, III-315a
Horse Shows IX-292b; performing horses, IX-368b
horse-stinger (dragonfly) II-123a
horse-tail fern III-96b
horse-tail, weed, VI-480a
Horse Transport IV-193b, 88b
horticultural shows VI-14a
horticulture, *see* flower garden; vegetable garden; gardening, history of; agricultural training
Horus, god, ancient Egypt, I-159a–160a, 180b
Hosea, Hebrew prophet, 8th cent. B.C., Index p. 126b
Hosiery and Knitwear VII-227a
hospices, travellers', IV-281a; *see also* hostels
Hospitallers, Order of Knights, I-282a
Hospitals, History of, X-188a; nursing, XI-332b
Hospitals, Modern, X-191a; mental hospitals, X-262b; nursing, XI-334a; special hospitals, X-426b
hospital train IV-461a
hostels, travellers', IV-202a; youth hostels, IX-493b
Hostmen, craft guild, VII-115a
Hot Drinks XI-226b
Hotel Industry VII-228b; IV-204b
Hotel Management VII-231a
hothouse plants VI-215a
Hottentots (Hodmadods), Negro peoples of South Africa, I-231a, 338a, b
Houdini, conjuror of early 20th cent., IX-150b
Houdon, Jean Antoine (1741–1828), French sculptor, XII-10b
hounds, dogs, IX-190b
hound's tongue, plant, Index p. 67
Hours, Book of, Church services, I-123
Hours, canonical (services of monastic community), I-325a
hours of work, industry, X-207a
housebreaking X-120a
House-fly II-213a; biting, II-405a; extermination of, XI-230a
Household Linen XI-227b
Household Management, Book of, Mrs. Beeton, XI-376b, 238a

Household Pests XI-229a
Household Plumbing XI-231a
Household Repairs XI-233b; treatment of damp, XI-96a
housekeeper XI-237a
Housekeeping, History of, XI-236a
house-martin, bird, II-415b
House of Commons X-192b; *illus.* X-177; buildings, X-196b; history, X-312b; party system, X-329a; procedure in passing bills, X-1a
House of Fame, The, Chaucer, V-88a
House of Lords X-194b; as appeal court, X-30b; buildings, X-196b; history, X-312b
House of the People, Indian government, X-205b
House-plants VI-245a
Household Words, magazine, V-137a
house-sparrow II-399a
Houses, History of, XI-239a; bricks and tiles, VII-56a; prefabrication, VIII-331b; woodwork, VII-80b; *see also* under building
Houses, Types of, XI-243b; skyscrapers, XII-422b
Housewife's Treasury, Mrs. Beeton, XI-238a
Housework XI-246a; cleaning equipment, XI-65a; furniture, care of, XI-191b
Housing, Municipal, X-198b; slum clearance, X-415b
Housing Management X-197b
Hover Fly II-213b
'Hovis' meal XI-48a
Howard, Catherine (1521–42), 5th wife of Henry VIII, V-220a
Howard, Sir Ebenezer (1850–1928), English town planner, X-172a, 456a
Howard, John (1726–90), penal reformer, X-338b
Howard of Effingham, Charles, Baron (1536–1624), British admiral, X-424b; IV-31b
Howe, Black Michael, 19th-cent. bush-ranger, X-64b
Howe, Richard, Earl (1726–99), British admiral, V-230b
howlers, monkeys, II-275a
Hoy, J., Orkneys, N. Scotland, III-327b; *map* III-396; Old Man of Hoy, III-327b, 77b
hoy, sailing vessel, IX-425b
Hradčany castle, Prague, Czechoslovakia, III-351a
Hsia, Chinese dynasty (2205–1766 B.C.), I-107a
Hsinking, Manchuria, China III-275a; *map* III-459
huanaco, llama, mammal, II-252a
Huang Ti, legendary Chinese emperor, I-107a, 114a; XII-73a
Hua To (115–205), Chinese surgeon, XI-425b
Huckleberry Finn, The Adventures of (1884), Mark Twain, XII-16a; V-453a
huckster, pedlar, VII-334b
Huddersfield, Yorks., wool industry, VII-486a
Hudson, Charles (1828–1865), mountaineer, IV-332b

Hudson, Henry (c. 1570–1611), English navigator and explorer, V-231a
Hudson, William H. (1841–1922), English writer, XII-296b
Hudson Bay, Canada, map III-69
Hudson river, U.S.A., III-14b, 202a
Hudson's Bay Company VII-233a, 200a
Hugh of Lincoln, St., Index p. 135b
Hugin, raven, in Norse mythol., I-343b
Hugo, Victor (1802–85), French poet, V-232b; *Hernani*, XII-110a
Huguenots, French Protestants, I-232b; V-388a
Hulagu, brother of Kublai Khan, V-263a
hulks, prison ships, X-339a
hull: of flying boat, IV-396b; **of ship**, VIII-388b
human body XI-4b
Humanism I-401b; V-320a
human monsters, mythological, I-335a
Human Rights, Declaration of (1948), X-270b
human sacrifice I-423a, 139b, 247a, 99b; cannibalism, I-95a
Humble-bee fly II-214a
Hume, David (1711–76), Scottish philosopher and historian, V-232b; theory of memory, XI-306b
humerus (upper arm bone) XI-31b
humidity, of atmosphere, III-473b; VIII-470b; **hygrometers (measuring instruments)**, VIII-291a
Humming-bird II-214b, 43b
'humours', in medieval medicine, XI-303b
Humphrey, Pelham (1647–1674), English composer, XII-17a
humus, decayed vegetable matter, VI-420b; II-292b
hundred, early subdivision of county, X-134b; **hundred court**, X-246b
'Hundred Days, the' (Napoleon's return to France, 1815) X-281a
hundredweight (cwt.), measure of weight, VI-11a
Hundred Years War X-200a
Hungarian language IV-147a
Hungarian Rhapsodies, Liszt, V-278a
Hungarians I-233a; **folk dancing**, IX-235a; **national costume**, XI-150b; I-233b
Hungary III-220b
'Hungry Forties' X-77b
Hunley, British submarine, X-435a
Huns, Asiatic invaders of Europe (4th cent.), I-234a
Hunt, James Henry Leigh (1784–1859), English writer, V-233b, 414b
hunter, horse, IX-287b
Hunter, John (1728–93), Scottish surgeon, V-233b; XI-98a
hunting: big-game, IX-64b; **deer**, IX-442b; **drag (artificial)**, IX-201a; **fox**, IX-244b; **hare**, IX-271a; **otter**, IX-354b; **pig-sticking**, IX-375a; **stag**, IX-442b
Hunting, History of, IX-293a
hunting and fishing dances IX-232b
hunting 'countries' of Britain IX-246b
hunting dogs IX-190b; **African**, II-121b

Hunting of the Snark, The, Lewis Carroll, V-73a
huntsman IX-246a
Huntsman, Benjamin (1704–76), British inventor, VIII-237b
Hurdle-making VI-246a
hurdling, athletic event, IX-40b
Hurdy-gurdy, musical instrument, IX-295b
Hurley, ball game, IX-296b
Hurlingham Club, governing the game of polo, IX-385a
Huron, lake, Canada/U.S.A., III-201b; map III-318
Hurricane, wind storm, III-221a
Hurricane, aircraft, X-51a
huskies, Eskimo dogs, IV-43a
Huss, John (c. 1369–1415), Bohemian religious reformer, I-328a
Hussars, regiment, X-367a; **3rd King's Own**, X-366b
Hussites, followers of John Huss, I-328a
hustings, election, X-146a
hutch, early cupboard, XI-54a
Huxley, Thomas Henry (1825–95), British scientist, V-234b
Huygens, Christiaan (1629–1695), Dutch mathematician and scientist, VIII-153b, 80b–81b; III-24b
Hwang Ho (Yellow River), China, III-492b; **early civilization**, I-105a; **flooding**, VI-128b; map III-87
hyacinth, garden flower, VI-59a–61a; **family Index** p. 69
hyacinth, semi-precious stone, III-496b
Hyacinthus, character in Greek mythol., Index p. 140a
Hyaena, flesh-eating beast, II-215a
hybridization, cross-breeding of plants, VI-336a
Hyde, Cheshire, wool industry, VII-487a
Hyde Park, London, IX-359a
Hyderabad, state, India, I-243a; map III-229
Hydra, primitive aquatic creature, II-215b
Hydra, monster, Greek mythol., I-167a
hydrangea, climbing plant, VI-90a
hydrant, fire-fighting, X-157a
hydraulic brakes VIII-214a
hydraulic coupling VIII-83b
Hydraulic Power Transmission VIII-212b
hydraulic press VIII-213b
Hydraulics VIII-214b
hydraulus (water organ), musical instrument, IX-340a
hydrochloric acid VII-4a, 5b
Hydrodynamics VIII-216b
Hydro-electric Power VIII-219a; **Owen Falls Scheme, Uganda**, VIII-320a
hydro-electric power stations VIII-192b
hydrofluoric acid VII-298a
hydrogen, gas, III-35b–38a; **liquefaction of**, VIII-257b
hydrogen bomb VIII-313b
'hydro glisseur', motor boat, IX-326a
Hydrographic Department, British Admiralty, IV-93b

Hydrography (study of waters of earth) VIII-221b; IV-92a
hydrology (study of rivers) VIII-222b
hydromel, alcoholic drink, XI-495a
hydrometer, density measuring instrument, VIII-48b
hydrophobia (rabies), disease, VI-20b; V-351a
hydroplane, motor boat, IX-325a
hygrometer, humidity measuring instrument, VIII-291a
Hymen, Greek and Roman god, Index p. 140a
Hymns XII-196b
Hypatia, Charles Kingsley, V-260a
hyperbola, curve, VIII-189a
hyperbole, figure of speech, XII-148a
hyperboloid, figure, VIII-189b
Hyperion, Keats, V-257a
hyperon, elementary particle, VIII-212b
hypnosis, in treatment of mental diseases, XI-311a
'hypo', chemical, VIII-325a
hypocaust, Roman heating system, IX-411b
Hypogeum, site of ancient city, Malta, III-272b
hypotenuse, of triangle, VIII-463a
Hyrax, rabbit-like creature, II-216a

iambic foot, poetry, XII-468b
I.A.T.A. (International Air Transport Association) IV-97b
Ibadan, Nigeria, W. Africa, III-316a; map III-5
Iberian peninsula (Spain and Portugal), III-418b
Iberians, prehistoric people, I-76b
Iberians (Spaniards) I-448a
ibex, wild goat, II-178b; IX-66a
ibis, bird, II-414a
Iblis, evil power, Moslem religion, I-430b
Ibn Khaldun (1332–1406), Arabic historian, XII-19b
Ibn Saud (1880–), King of Saudi Arabia, I-15b
Ibn Sina (Avicenna, 980–1037), Persian philosopher and physician, XII-341a; XI-304a, 99a
Ibo, W. African peoples, I-337b
Ibsen, Henrik (1828–1906), Norwegian dramatist, V-236a; XII-458a
I.C.A.O. (International Civil Aviation Organization) X-214b; IV-97b
Icarus, legendary Greek hero, IV-154b; Index p. 140a
Ice III-223a, 177a; **glaciation**, III-191a; **glaciers**, III-192b
Icebergs III-224b; IV-102a
Ice-breaker, vessel, IV-196a
Ice-hockey IX-297a
Iceland III-225a, 467b; **Great Geyser**, III-188b
Icelandic language IV-395a
Icelandic sagas XII-398b
Iceland spar, mineral, VIII-327a
Ices XI-248a; **refrigeration**, VII-125a
ice travel IV-422b
Ice-yachting IX-297b
Ichabod, grandson of Eli, Old Testament, Index p. 127a

Ichneumon Fly II-217a
ichthyosaurus, prehistoric animal, III-352b; *illus.* III-172
icings and fillings XI-248b
iconoscope, electronic tube, television, VIII-438b
Icons, sacred pictures, XII-198a; *illus.* XII-393; *illus. opp.* p. 400
Ictinus (5th cent. B.C.), Greek architect, XII-3b
Ida, Mount, Greek mythol., Index p.140a
Idaho, state, U.S.A., III-454a; *map* III-451
ide, carp, fish, II-74a
'ideal' ('perfect') fluid VIII-217a, 215a
identity card X-483a
ideographic writing IV-493a
Idiot, *The*, Dostoevsky, V-143b
Idler, *The*, periodical, XII-336a
idols, *illus.* XII-306, 359
Idomeneo, opera, Mozart, V-324a
Iduna, goddess, Norse mythol., I-344b
idyll, pastoral poem, XII-334b
Ifogas, N. African peoples, I-477a
igloo, Eskimo house, I-163a
igneous rocks III-378a
ignis fatuus (Will-o-the-Wisp) III-486a
Iguana, lizard, II-217b
iguanodon, prehistoric animal, *illus.* III-352
Ikhnaton, 14th-cent. B.C. Egyptian king, V-5a; XII-124b
Iliad, *The*, Greek epic poem, XII-194b; V-229a
Ilium (Troy), ancient city of Asia Minor, I-476a, 33a
Illinois, state, U.S.A., III-452b; *map* III-451
Illuminated Manuscripts XII-199b; IV-51a; technique, XII-203b
Illumination VIII-224a, 121b; street lighting, X-433b
Illustration IV-196a; etching and engraving, XII-138a; lithography, XII-245a; process reproduction, VII-363a; wood-engravings and woodcuts, XII-478a; *illus.* XII-302; *see also* illuminated manuscripts
Illustrious, British aircraft carrier, *illus.* X-7b
I.L.O. (International Labour Organization) X-216a
Imam, prayer leader, Islam, I-385b
Immanuel, *see* Emmanuel
immortelle, Mediterranean, everlasting flower, VI-127a
immunity, to disease, XI-253b, 4a
impact testing, of materials, VIII-418b
Impeachment, political, X-202a
Imperial Agricultural Bureaux VI-376a
Imperial College of Science and Technology, London, X-255a
Imperial Cup, horse-racing event, IX-292a
Imperial Fruit Show VI-14a
Imperial gallon, standard liquid measure, VI-11a
Imperial standards, weights and measures, VI-10b

Imperial Tobacco Company VII-438b
Imperial Valley, Colorado desert, U.S.A., III-102b
imports, British, VII-324a; bulk purchase, VII-69b; 'invisible', VII-249a; shipping, VII-392a
Impressionist Painting XII-204a
Inaccessible, I., Tristan da Cunha, S. Atlantic Ocean, III-446a; *map* III-322
Inca Civilization, of S. America, I-235a
'in camera' trials X-464b
incandescent filament lamp VIII-121b
incantations, magical, I-450a, 288a
Incarnation, doctrine of Christian Church, I-272b, 279b
incendiary bombs X-58a
inch IV-263a
Income Tax X-203a
incubator, chicken, VI-360a
indehiscent fruits II-166b
indentures, apprentices', VII-18b
Independence, Declaration of, American, X-20b; *illus.* X-25
Independent Labour Party V-208b
independent schools, *see* private schools
Index of prohibited books, Roman Catholic Church, I-407b
indexing IV-90a
index numbers, in mathematics, VIII-14b; IV-260b
India III-226a; agriculture, I-248b; VI-461a; caste system, I-95b; climate, III-295b; in continental drift theory, III-111a; cotton industry, VII-137b, 139a; East India Company, VII-171a; European colonization, X-105a; famine, VI-128a; independence, X-204b; V-108b; jute industry, VII-256b; mica mining, VII-293b; population, I-372b, 242b; public health, X-340b; opening of sea-route to Europe, V-117a-118a; suttee, I-460b; tea trade, VII-428b; *see also* Pakistan
India, Government of, X-204b, 63a
india-rubber IV-496b
india-rubber plant VI-246a
India Tea Company VI-438a
Indiana, state, U.S.A., III-452b; *map* III-451
Indian Art XII-206a, 323a; *illus.* VII-293, 444; embroidery, XI-136a
Indian Civilization I-238a
Indian corn (maize) VI-275a; II-379a, 434a
Indian Empire, Order of the, X-187b
Indian lamb, skin, VII-200b
Indian Languages IV-199b; Sanskrit, IV-393a
Indian Literature XII-209a
Indian music XII-318b
Indian Mutiny (1857) X-278b; V-267a
Indian Ocean III-321a, b; *map* III-322
Indian Ocean Islands III-230b; *map* III-322
Indian Peoples I-242b; birth ceremonies, I-72a; initiation ceremonies, I-253a; Indians of East Africa, I-152b; of

Malaya, I-291a-293a; of South Africa, I-444b
Indian religions I-242b
Indian rope trick IX-151b
Indian runner duck VI-120b
Indians, American (Amerinds, Amerindians): Central and South, I-6a, 487b; North, I-9b, 15b; racial features, I-392a, 390b; *see also under various American countries*
Indians, American, ancient civilizations: Aztec, I-53a; Inca, I-235a; Maya, I-300a; Mexican, I-308a; Peruvian, I-357b; *chart* I-22
Indians, Hill Tribes, I-244b
Indians, Village Life, I-247a; famine, VI-128a
indices, mathematical, IV-260b; VIII-14b
indictable offences X-118a, 256a
indigo, dye, VII-168b
Indo-China III-232a, 21b; *map* III-87
Indo-Chinese I-249a
Indo-European Languages IV-200b
Indo-Gangetic Plain, N. India, III-226b
Indo-Germanic languages IV-200b
Indomitable, H.M.S., British aircraft carrier, *illus.* X-383
Indonesia (East Indies) III-143a, 21a; history, I-251a
Indonesian Languages IV-201a
Indonesians I-250a; racial features, I-393a
Indra, Indian god, I-198b, 239b
Induction, Electric, VIII-226a; measurement of, VII-274a
induction motor VIII-136b
'Indulgence', remission of punishment, Roman Catholic Church, I-287a
Indus, river, N.W. India, III-233b; Lloyd Barrage, VIII-258b
Industrial Alcohol VII-235a; VI-436a
industrial arbitration X-33a
Industrial Art XII-209b; design, XII-99b
industrial chemistry VII-100b
Industrial Court X-33a
Industrial Design, Council of, XII-211a
industrial diseases VIII-379a
Industrial Psychology VII-236b; factory welfare, X-206a
Industrial Revolution VII-239a; effect on art, XII-210b; change in apprenticeship system, VII-17b; coal industry, VII-115b; cotton industry, VII-138a; changes in English countryside, III-155b; domestic system of production, VII-166a; factory welfare, X-206a; Luddite riots, VII-274a; slums, X-413b; social teaching inspired by, V-398a, 323a, 343a; town development, XI-457; trade union movement, VII-448b; wool industry, VII-484a; working class way of life, IX-285b
Industrial Welfare X-206a; apprenticeship, VII-18b; employment of children, X-80b; industrial psychology, VII-236b; International Labour Organization, X-216a; welfare in mines, VII-113a, 115b; safety devices, VIII-378a

- Industry** VII-242b; business organization, VII-69b; capital, VII-79b; costing, VII-135a; factory organization, VII-185a; history, VII-164b; instruments, applied to production, VIII-227b; labour, VII-259a; localization of industry, VII-271b; market research, VII-282a; scientific management, VII-383a; trade unions, VII-451a; transport, VII-455b; *see also under each industry*
- inert gases** III-37a
- Infallibility**, Papal, doctrine of, I-407a
- infantile paralysis** XI-360a
- infantry** X-41b, 366b; history, X-227b; 'light' regiments, X-367a; uniforms *illus.* X, opp. p. 48
- infection of wounds** XI-26b; surgical, XI-7b
- Infectious Diseases** XI-249b; quarantine regulations, X-357a
- infirmary** X-190a, 495b
- inflation, economic**, X-125a
- Influenza and Common Cold** XI-252b
- infra-red rays** III-359a
- Ingoldsby Legends**, R. H. Barham, XII-92a
- Ingres, Jean** (1781-1867), French painter, XII-162a
- Inheritance**, law, X-208a; British Crown, X-120a; peerage titles, X-317b; Probate court, X-184b; Scottish law of, X-393b; trust, X-467b
- inheritance, biological**, II-203b; animal, VI-427b; plant, VI-336b
- Initiation Ceremonies** I-252a
- Ink** IV-201b
- Inkerman, battle** (1854), X-118a
- Inland Revenues**, Board of, X-109a
- inland waterways** IV-79b
- Inlay and Marquetry** VII-243a
- In Memoriam R.H.H.**, Tennyson, V-442b
- Inner Temple**, London, X-237a
- Innina**, Sumerian goddess, I-459a
- Innocent III**, pope 1198-1216, I-117b, 132b
- Inns IV-202a**; 'tied houses', VII-42a
- Inn Signs** IV-204b
- Inns of Court**, legal societies, X-237a
- Inns of Court Regiment** X-367b
- Inoculation and Vaccination** XI-253b
- Inönü** (1884-), Turkish statesman, I-479b
- inorganic acids** VII-3b
- inquest** X-114b
- Inquisition**, of Roman Catholic church, I-254b; V-179b
- insanity** XI-309b
- inscriptions**, on monuments, IV-180a
- Insecticides** VI-248a; spraying and dusting machines, VI-425b
- Insectivora** (insect-eating animals) II-218a
- Insectivorous Plants** II-218b
- Insect Pests** VI-250a; extermination of, XI-229b; insecticides, VI-249a, 425a
- Insects** II-221a; classification, II-89b; coloration, II-331a; defences, II-331a; language, II-13b; metamorphosis, II-263a; sensory organs, II-381b
- inspection**, in industry, X-150a; production engineering, VIII-336a
- Inspector, schools'**, X-268b
- Instinct** II-222b; XI-372a
- Institut de France** (association of French academies) XII-1b
- Institute of British Agricultural Engineers** VI-15b
- Instrumentation**, in industrial processes, VIII-227b
- instrument flight**, aircraft navigation, IV-5a; for landing, IV-293a
- insulation**, electrical, VIII-127a; asbestos, VII-20b; mica, VII-294a; cable insulation, VIII-50b
- insulation**, sound, *see* sound insulation
- insulin**, hormone, in diabetes, XI-99a-100a; insulin shock treatment, XI-311a
- Insurance** XI-254b; VII-245a; 'credit insurance', VII-148b; statistics used as basis of, VII-407a, 245b
- insurance**, social, X-418a; National Health Service, X-286a
- intaglio printing process** XII-138a
- integral calculus** VIII-55b-56a
- Intelligence**, in animals, II-222b
- Intelligence**, human, XI-256a
- Intelligence Services** X-209a; spies, X-429b
- Intelligence Tests** X-210a
- intensity**, of sound, VIII-1a
- Interest** VII-247b; on bank loans, VII-34a; on building society loans, VII-69a; on debentures, VII-156b; stocks and shares, VII-411a; usury, VII-460b
- interference**, radio, VIII-358b
- Interior Decoration** XI-257b; *illus.* XI, opp. p. 256
- Interior Decoration, History of**, XI-259a
- interludes**, Medieval comic plays, XII-279a
- intermezzo**, operatic, IX-349b
- Internal Combustion Engine** VIII-229a, 153b; supercharging, VIII-88b
- internal combustion engines**: air, IV-7b; rail, IV-125a; road, IV-373b, 272b; ship, IV-275b
- Internal Drainage Board** VI-119b
- International**, union of socialist movements, V-297b; Third International, X-110b
- international arbitration** X-33b
- International Aviation Cup** IX-9b
- International Bank for Reconstruction and Development** X-211a, 215a
- International Banking** X-211a, 215a; merchant bankers, VII-290a
- International Broadcasting** IV-206a
- International Civil Aviation Organization (I.C.A.O.)** X-214b; IV-97b
- International Confederation of Free Trade Unions** VII-455b
- International Conference of Primary Producers** VI-294b
- International Co-operation**, Political, X-211b; arbitration, X-33b; sanctions, X-389a; United Nations Organization, X-473b
- International Co-operation, Social and Economic**, X-214a; Marshall Aid, X-260a; UNESCO, X-470a
- International Court of Justice**, The Hague, X-181b
- International Express mail service** IV-145b
- International Famine Relief Committee** VI-129a
- International Federation of Agricultural Producers** VI-294b
- International Finance** VII-247b; International Monetary Fund, X-211a, 215a; rates of exchange, VII-371a; speculation, VII-404b
- International Horse Show** IX-292b, 293a
- International Labour Organization** X-216a
- International Languages** IV-208a
- International Law** X-216a
- International Monetary Fund** X-211a, 215a
- International Phonetic Alphabet** IV-429b
- International Police** X-217a
- International Refugee Organization** X-363b, 215b
- International Society of Contemporary Music** IX-341a
- International Telecommunications Union** X-214b
- International Trade** VII-248b; European trade, *table* VII-409; financing, VII-291a; rates of exchange, VII-371a
- International Voluntary Service for Peace** IX-141a
- Inter-planetary Travel** IV-209a
- intestate**, intestacy, (not having made a will) X-208a
- intestines**, in digestive system, XI-100b; blood drainage from, XI-28b
- introvert character**, psychological classification, XI-373b
- inulin**, starch-like substance, VI-34b
- Invalid Cookery** XI-263a
- invar**, metal alloy, VIII-156a, 82a
- invasion**, in modern warfare, X-26b; fortification of British coast, 1940, X-166a
- inventions**, patents, VII-332a; royalties, VII-380a
- invertebrates** (animals without backbones) II-10a; classification of, II-89a
- investiture ceremony**, honours, X-186b
- investments** VII-411a; bank investments, VII-33b; bond, VII-45a; debentures, VII-156b; international investment, VII-248a
- 'Invincibles'**, Irish Secret Society, X-407a
- invisible inks** IV-201b
- Invoices** VII-250b; punched card statements, VII-2a
- involute curve**, gearing, VIII-183a
- Io**, princess, Greek mythol., Index p. 140b
- iodine**, importance in nutrition, XI-337a; in animal food, VI-170b
- Iona**, I., W. Scotland, I-431a, 124a
- Ionian Is.**, Greece, III-204b

Ionians, of ancient Greece, I-204b
 Ionic Greek IV-178a; alphabet, IV-23b
 Ionic order, architecture, XII-316b
 ionization (charging of particles with electricity) III-116a; VIII-353a
 ionosphere (outer layer of earth's atmosphere) III-34b
 ions (electrically charged particles) III-116a
 IOU, acknowledgement of debt, VII-43a
 Iowa, state, U.S.A., III-453a; map III-451
 Iphigenia, character in Greek mythol., I-209a; Index p. 140b
 I.Q. (intelligence quotient) X-210b
 Iqbal, Mohammed (1873-1938), Indian poet and politician, V-237a
 I.R.A. (Irish Republican Army) X-407b
 Iran (Persia) III-336b, 20b; map III-17
 Iranian (Persian) languages IV-312a
 Iranians (Persians) I-353b, 356a
 Iranis, Zoroastrians of Persia, I-352a
 Iraq III-234b; map III-17; see also Mesopotamia
 Iraqi I-255b
 Ireland III-235b; crofting, VI-105a; Easter Rising (1916), V-495b; XII-271b; fishing industry, VI-156b; folk dancing, IX-239a; lace-making, VII-262a; linen industry, VII-268b; political and religious societies, X-407a; rebellion, I-257a; setting up of republic, V-280b; I-257a
 Ireland, Government of, Act (1921), V-280b
 Ireland, Northern, I-257b, 259a; government, X-301a
 Ireland, Republic of (Eire), III-236a; I-257a
 Irene, Greek goddess, Index p. 140b
 Irises VI-251a, 491b; family, Index p. 69
 Iris, rainbow, in Greek mythol., Index p. 140b
 Irish I-257a
 Irish famine (1845-6) VI-129b; V-342b, 355a
 Irish Free State, see Ireland, Republic of
 Irish Home Rule movement V-192b, 348b; X-407a
 Irish jig, dance, IX-239a
 Irish Language IV-211a
 Irish Republican Army (I.R.A.) X-407b
 Irish Sweepstake, lottery, IX-310b
 Irish wolfhound IX-192a
 I.R.O. (International Refugee Organization) X-363b, 315b
 iron, in diet, XI-26b, 186b
 Iron age I-375b-378b; III-284b; art, XII-358b; pottery, I-381b; tools, I-384a
 Iron and Steel VIII-233a; as building materials, VIII-419a; table, VIII-47; by-products, VII-73a; in Industrial Revolution, VII-239b; magnetic properties of iron, III-270a; first use for ships, VII-388a
 Iron and Steel Industry, History of, VIII-235a; illus. VII-241
 Iron Guard, Roumanian secret society, X-406a
 ironing XI-279b, 281a, 282b

iron lung XI-361a
 Ironmongers Company VII-107a
 Iron Mts., S. Australia, III-42a
 Iron Ore VII-251b; distribution in earth, table III-284
 iron-smelting VIII-235b, 25b
 iron-stone, mineral, III-283b
 iron sulphide (marcasite) III-125b
 irony XII-148a
 Iroquois, North American-Indian tribe, canoe building, IV-83b; languages, IV-26b
 irrational numbers, arithmetic, VIII-15a
 Irrawaddy, river, Burma, III-237b
 Irrigation VI-253b; Central Valley Project, California, VIII-68a; Owen Falls Scheme, Uganda, VIII-320a; vegetable garden irrigation, VI-472b
 irruption (mass movement of animals) II-265b, 267b
 Irving, Sir Henry (1838-1905), English actor, V-237b; IX-8b
 Irving, Washington (1783-1859), American writer, XII-15b
 Isaac, Hebrew Patriarch, Index p. 127a
 Isabella of Castile (1451-1504), Queen of Castile, V-165a
 Isabey, Jean Baptiste (1767-1855), French miniature painter, XII-260b
 Isaiah (c. 760-690 B.C.), Hebrew prophet, V-238b
 Iscariot, see Judas Iscariot
 Isfahan, Persia, III-337a, XII-340a; map III-17
 Ishmael, eldest son of Abraham, Old Testament, Index p. 127a
 Ishtar, Babylonian goddess, I-61b
 Isidore of Seville, 7th-cent. writer, XII-129b, 192a
 Isin, ancient Sumerian city and dynasty, I-458b
 isinglass, gelatine, XI-266a
 Isis, goddess of ancient Egypt, I-159a-160a
 Isis (Thames), river, III-436a
 Islam (Moslem, Mohammedan religion and civilization) I-259b; angels, I-27a; culture in Dark Ages, X-475b, V-26b; dervishes, I-142a; empire, map Index p. 54; conception of evil, I-430b; Haroun at Raschid's empire, V-210b; Mohammed, V-312b; sacred books, I-422a; worship, I-260a, 385b; see also Arabs
 Islamic architecture XII-211b, 21a, 107a
 Islamic Art XII-211b
 Islamic (Arabic) literature XII-19a
 Islamic music XII-319a
 Isle of Man III-238b; folk dancing, IX-239a; motor-cycle racing, IX-328a
 Isma'ili sect, of Syria, I-465a
 isobars, of weather charts, III-481a
 isolationism, national policy, X-274a
 isotopes, atoms, III-38a; radioactive, VIII-349b
 Israel, ancient kingdom of Palestine, I-218b; see also Jews
 Israel, lost tribes of, I-76a
 Israel, modern state, I-277b; III-332a
 Israelites I-217b, 275b; King David, V-126b; Isaiah, V-238b; King Solomon, V-420b

Israelites, British, sect, I-75b
 Isra'fil, Moslem archangel, I-27a
 Issuing Houses, financial, VII-252b
 Istanbul (Constantinople), Turkey, III-239b; map III-17; St. Sophia's, XII-402a; for early history see Constantinople
 Isthmian games, Greek athletic festival, IX-347b
 Italian architecture XII-213b; Renaissance, XII-85a, 215a
 Italian Art XII-213b, 85a; frescoes, XII-325a; early painting methods, XII-324a; sculpture, XII-441b
 Italian art: Florentine painting, XII-153a; Sienese painting, XII-419b; Venetian painting, XII-465a
 Italian gardens VI-194b
 Italian greyhound IX-194b
 Italian Language IV-211b
 Italian Literature XII-218b
 Italian opera XII-309a-310a; Verdi, V-457a
 Italian ryegrass VI-210b
 Italians I-263b
 Italian Somaliland, E. Africa, III-408b; Somalis, I-339a
 Italic lettering VII-362b; IV-181a, 52b
 Italy III-241a; map III-160; Fascism, X-453b; in First World War, X-159b; medieval Italy, X-88a; V-120b-121b; 171a; in Second World War, X-402b; V-325a; secret societies, X-406b; trade unions, VII-455a; unification and independence, V-74b, 303a, 182a; universities, X-476a
 itch-mite, pest, VI-291a
 Itinerary of Antonius, 3rd cent. A.D., IV-377a
 Itma, radio programme, IX-97a
 I.T.U. (International Telecommunications Union) X-214b
 Ivan III (1440-1505), Duke of Moscow, I-414b; III-320b
 Ivan the Terrible (Ivan IV, 1530-84), first Emperor of Russia, V-240a
 ivory II-136b
 Ivory Carving XII-221a, 56a
 Ivory Coast, W. Africa, III-208b; map III-5
 ivy VI-90b; II-356b, 90b
 Jablochhoff candle VIII-121b
 jacara (caiman), crocodile, II-107a
 jacinth, semi-precious stone, III-496b
 jack, hydraulic, lever, VIII-214a
 Jackal, mammal, II-225a; IX-295a
 Jackal (Anubis), Egyptian god, I-418b
 jackass, laughing, bird, II-231b
 jackdaw, crow, II-13b, 108b; IX-107a
 Jack-o'-lantern (Will-o'-the-Wisp) III-486a
 Jack-in-the-pulpit (cuckoo-pint), plant, II-324a
 Jackson, Thomas, 'Stonewall' (1824-63), V-268b
 Jacob, Hebrew patriarch, Index p. 127a
 Jacobins, Dominican friars in France, V-141b
 Jacobins, French revolutionaries, X-169a
 Jacobite church I-116a, 465a; table I-18

Jacobite Rebellions (1715) V-430a; (1745) V-430b
 Jacquard loom *illus.* VII-269
 Jade, stone, III-243a; carving, XII-72a
 jadeite, stone, III-243a, 290b
 Jael, slayer of Sisera, Old Testament, Index p. 127a
 Jagiello (Ladislav II), 14th-cent. King of Poland, I-369a
 Jaguar, mammal, II-225a
 Jahn, F. L. (1778-1852), German gymnast, IX-269b
 Jahveh, *see* Jehovah
 jail fever X-338b
 Jains, Indian religious sect, I-266a
 Jam XI-264a
 Jamaica, I., West Indies, III-484b, 485b; government, X-102a; people of, I-487b
 jamb, armour, *illus.* X-37
 Jamborees, Boy Scout, IX-87b
 James I, King of England 1603-25, X-313b; I-431b
 James II, King of England 1685-88, X-372a; V-356b
 James, Henry (1843-1916), American novelist, XII-16a
 James, St., apostle, Index p. 127a; I-367a
 Jameson Raid (1895) X-424a
 Jamshedpur, N.E. India, III-230a; I-243b
 Jane Eyre, Charlotte Brontë, V-56a, 56b
 Janissaries, Turkish army corps, V-432a
 Jannequin, Clément, French composer of 16th cent., XII-365b
 Jansen, Cornelius (1585-1638), bishop of Ypres in Flanders, V-349a
 Jansenists, of Roman Catholic Church, V-349a
 Janus, Roman god, I-453b; XI-366a; Index p. 140b
 Japan III-243b; invasion of China, I-269a; cotton industry, VII-139a; fishing industry, VI-158b; occupation of Korea, III-251b; navy, X-299b, 52b; in Second World War, X-404b
 Japanese I-268a
 Japanese Art XII-224a; lacquer, XII-233a; pagodas, XII-323a; woodcuts, XII-480a
 Japanese Language IV-212a
 Japanese Literature XII-227a
 Japanese music XII-318a
 Japanese pottery XII-226a
 Japanese religion (Shinto) I-433b
 Japanese winter cherry VI-492a
 Japheth, son of Noah, Index p. 127a
 jargon, semi-precious stone, III-496b
 jarrah, hardwood, VII-223b
 jasmine, climbing plant, VI-91a, 90a
 Jason, hero, Greek mythol., I-207b; Index p. 140b
 jasper, precious stone, *illus.* III, opp. p. 288
 Jasper National Park, Alberta, Canada, III-70b; IX-344a
 jaundice, disease, XI-101b
 Java, I., East Indies, III-144a-145b; peoples of, I-151a-152a; conquest of, V-379a
 Java man, fossil remains, I-182a
 javelin throwing, athletics, IX-37a

jaw XI-31a
 jay, crow, II-109b
 Jazirah, plateau, Iraq, III-234b; I-465a
 Jazz XII-228a; bands, IX-172a
 Jebel-Druze, region, Syria, III-430b
 Jedda (Jidda), port, W. Arabia, III-15b, 365b; map III-17
 Jefferies, Richard (1848-87), English writer, XII-296a
 Jefferson, Thomas (1743-1826), American statesman, V-241a; IV-111b
 Jeffreys, George, Baron (1648-89), Lord Chief Justice, V-242a
 Jehovah, God, Hebrew religion, I-270b, 198a
 Jehu, Israelite soldier, Index p. 127b
 Jellicoe, Sir John (1859-1935), British admiral, X-225a
 Jellies and Aspics XI-265a
 Jelly-fish II-225b, 349a
 Jena, Battle of (1806), V-329b
 Jenghis Khan, *see* Genghis Khan
 Jenner, Edward (1749-1823), discoverer of vaccination, V-242a; XI-253b
 Jennings, Sarah (1660-1744), Duchess of Marlborough, V-294b
 Jerboa, rodent, II-226b
 Jeremiah (c. 650-580 B.C.), Hebrew prophet, V-243b
 Jeremiah, book of the Bible, I-421a
 Jericho, Palestine, III-247b; Index p. 127b
 Jericho, rose of, II-120a; *illus.* II-119
 Jeroboam, founder of kingdom of Israel, Index p. 127b
 Jerome, St. (c. 340-420), V-24a; Index p. 135b; Dürer engraving, XII-139
 Jersey, Channel I., III-81a
 Jersey cattle VI-76b; *illus.* VI, opp. p. 80
 Jerusalem, Palestine, III-245b; I-218b; map III-17; as a centre of pilgrimage, I-366b; in the crusades, I-131a, 132b
 Jervis, Sir John, Earl of St. Vincent, (1735-1823), British admiral, V-244a
 Jervis Bay, British cruiser, X-123a
 Jesse, father of David, Index p. 127b
 Jessop, G. L. (1874-1955), cricketer, IX-162a
 Jessop, William, 18th-cent. British engineer, IV-484b
 Jesters IX-298a
 Jesuit, member of Society of Jesus, V-285a; I-326b; XII-41a; in Brazil, I-74b; in China, I-115a
 Jesus of Nazareth I-271a, 120a; in Jewish teaching, I-279a; as sacrifice, I-423b; meaning of word 'Christ', I-279a
 Jesus, *Wisdom of*, Jewish sacred writing, I-421a
 Jet, stone, III-246a
 jet, of petrol engine, VIII-230b
 jet engine IV-8b; VIII-181b; bomber aircraft, X-56b; power measurement, VIII-116a
 jetsam (goods lost at sea) IV-393a
 Jewellery, History of, XI-266a; *illus.* XI, opp. p. 224
 Jewellery Trade VII-254a; use of platinum, VII-345b
 Jewish II-372a
 Jewish civilization, *see* Hebrew civilization

Jewish language, *see* Hebrew language
 Jewish law I-275b; X-234b
 Jewish religion, *see* Judaism
 Jewish sacred books I-421a
 Jew of Malta, Marlowe, V-296a
 Jews I-275b; persecution of, I-276a, 192a; in Germany, I-192b; V-224a; *see also* Hebrew civilization; Judaism
 Jews, Bokharan, peoples of Central Asia, I-447b
 Jews' Harp IX-299b
 Jezebel, wife of Ahab, Old Testament, Index p. 127b
 jib cranes VIII-99b
 Jibuti (Djibouti), French Somaliland, E. Africa, III-408b; *illus.* III-5
 Jidda (Jedda), port, W. Arabia, III-15b, 365b; map III-17
 jig, Irish, IX-239a
 jig-boring machine VIII-113b
 jigger (chigoe), flea, II-153b
 Jigs and Fixtures VIII-240a
 Jinas, saints, Jain religion, I-266b
 Jinn, spirit, Moslem religion, I-27a, 171b
 Jinnah, Mahomed Ali (1876-1948), Governor-General of Pakistan, V-245a
 jitterbug dancing IX-51a
 Jiva, paradise, Jain religion, I-266b
 Jivaros, American-Indian tribe, I-9a
 Joan of Arc (1412-31) V-246a
 Joanna, New Testament, Index p. 127b
 Job, Biblical character, Index p. 127b
 Job, ballet, XII-38b, 98a
 'job production', industry, VII-366b
 Job's tears, grasses, VI-289b
 Jockey Club IX-290a
 Joey (Joseph Grimaldi 1779-1837), clown, V-202a; IX-139a
 Johannesburg, S. Africa, III-246b; map III-5
 John (1167-1216), King of England, X-257b
 John II, King of France (1319-64), IV-44a
 John, Augustus (1878-), British painter, XII-352a
 John the Baptist, Index p. 124a; I-271b
 John, St., Chrysostom (c. A.D. 344-407), I-348b
 John, St., of the Cross (1549-91), V-443a
 John, St., the Divine, apostle, Index p. 127b; gospel, I-70b, 422a
 John's disease, cattle disease, VI-19b
 John-go-to-bed-at-noon (salsify), plant, II-284b
 John Innes Horticultural Institution VI-354b, 151b
 Johns Hopkins University, U.S.A., X-24b
 Johnson, Amy (1903-41), air pilot, IV-158a
 Johnson, Samuel (1709-84), English writer, V-248a; Dictionary, IV-356b; letters, XII-242b; *Life of*, Boswell, XII-44a; V-249b; *Lives of the Poets*, V-249a; XII-244b; satire, XII-406a
 joinery VII-80b
 joint-ill, animal disease, VI-19b
 joints: of human body, XI-30a; of meat, XI-301a; of woodwork, VII-83b

- joint-stock banks VII-30b
 joint-stock company VII-126b
 joker, playing card, IX-378a, 379b
 Joliot, François, 20th cent. French scientist, XI-374b
 'Jolly Roger' flag IV-150b
 Jonah, Hebrew prophet, Index p. 128a; book of Bible, I-70a
 Jonathan, friend of David, Index p. 128a; V-127a
 Jones, Griffith (1683-1761), founder of Welsh schools, X-491a
 Jones, Inigo (1573-1652), English architect, V-250a
 jongleur (juggler) IX-300a, 320a
 Jonson, Benjamin (1572-1637), poet and dramatist, V-251a
 Joppa (Jaffa), Palestine, Index p. 128a
 Jordan, river, Palestine, III-247a; map III-17; Index p. 128a
 Jordans, Quaker meeting house, *illus.* I-389
 Jormungand, monster, Norse mythol., I-335b
 Joseph, son of Jacob, Old Testament, Index p. 128a
 Joseph, St., Index p. 128a
 Josephine (1763-1814), Empress of France, V-329b; I-489a; XI-268b
 Josephus, Flavius (A.D. 37-c. 98), Jewish historian, I-76a; XII-188b
 Joshua, Israelite leader, Index p. 128a; book of, I-421a
 Joshua, Hebrew name, I-271b
 Josiah, King of Judah, Index p. 128a
 Joule, James Prescott (1818-89), English physicist, VIII-196a
 joule, unit of measurement, VIII-273a
 journal of book-keeping VII-49a
 Journalist IV-213b, 300b; B.B.C. news journalists, IV-299a; history, IV-302b; reporters, IV-358b
Journal of the Plague Year, Defoe, V-132a
 journals (periodicals) XII-336a; IV-248b
 journeyman, of craft guild, VII-143b
 jousting (contest between two knights) IX-467a
 Jove (Jupiter), Roman god, I-197b; 201b; *see also* Zeus
 Joyce, James (1882-1941), Irish novelist, V-252a; XII-301a
 Joyce, William, 'Lord Haw-Haw' (1906-46), X-462b
 J.P. (Justice of the Peace) X-224a, 247a-248b
 Juarez, Benito (1806-72), Mexican statesman, I-312b
 Juba, river, Somaliland, E. Africa, III-408b; map III-5
 Judaea, southern part of Palestine, Index p. 128b
 Judah, son of Jacob, Old Testament, Index p. 128a
 Judah, ancient kingdom, S. Palestine, I-69a, 219b; V-243b
 Judaism (Jewish religion) I-278a; angels, I-25a; God, I-198a, 270b; Messiah, I-120a, 278b; early priesthood, I-384b; prophets, I-386a; rabbis, I-279b; Hebrew sacrifice, I-423a; Satan, I-429b; synagogue, I-278a; Hebrew temples, I-469a
 Judas Iscariot, apostle, Index p. 128a; I-275a
 Judas Maccabaeus, Jewish military leader, Index p. 128a
 Jude, writer of Epistle, Index p. 128a, 135b
 Judge X-218a; in Scottish law, X-391a; trial by, X-464b
 Judge-Advocate of the Fleet X-116b
 Judge-Advocate-General X-116b
 Judges, book of the Bible, I-421a
 Judicature Act (1873) X-234a
 Judicial Committee of Privy Council X-31a
 Judith, in Apocryphal, Index p. 128b
 judo (ju-jitsu), wrestling, IX-300b
 Jugglers IX-299b; antipodean jugglers, IX-2a
 Jugoslavia *see* Yugoslavia
 Jugs and Vessels XI-269a
 juju, spirit, of primitive religions, I-27b
 Ju-jitsu (judo), wrestling, IX-300b
 Julius Caesar (c. 102-44 B.C.), Roman soldier and statesman, V-252b, 368a
 jumping, athletics, IX-35a
 juncaceae, plant family, Index p. 69
 Jung, Carl (1875-), German psychologist, XI-373a
 Jungfrau, *mt.*, Switzerland, III-10b; IX-332a
 jungle II-436a; III-169a; African, III-4b; S. American, III-416a
Jungle Books, Rudyard Kipling, V-260a
 jungle-fowl, bird, II-318a
 Junk, Chinese vessel, IV-214a
 Juno, Roman goddess, I-201b; Index p. 140b; *see also* Hera
 Jupiter (Jove), Roman god, I-197b, 201b; Index p. 140b; *see also* Zeus
 Jupiter, planet, III-343a, 340b; moons of, III-147a
 Jura, *mts.*, W. Europe, III-187a, 428b
 Jurassic age, period of earth's history, table III-139
 Jury X-220a, 464b; in Scottish law, X-392b
 Justice and Law X-221a
 Justice of the Peace X-224a, 247a-248b
 Justiciary, High Court of, X-391b
 Justinian I (c. 483-565), Roman Emperor, V-253b; X-235b; *illus.* I-89
Just So Stories, Rudyard Kipling, V-261a
 jute, fibre crop, VI-152b
 Jute Industry VII-256b
 Jutland, peninsula, Denmark, III-124a; I-32a
 Jutland, Battle of, X-224b, 52b
 Juvenal (Decimus Junius Juvenalis, A.D. c. 60-c. 130), Roman satirist, XII-404a
 Juvenile Court X-225b
 Kaabah, sacred stone, Islam, I-260b; III-285
 Kabul, Afghanistan, III-2b; map III-229
 Kabyles, Berber people of N. Africa, I-425a
 Kachins, Burmese peoples, I-85b
 kadiak bear II-52b
 kaffir cat IX-117b
 Kafirs, Afghanistan tribe, I-3b
 kagu, bird, II-104b
 Kaieteur Waterfall, British Guiana, S. America, III-248a
 kainit, fertilizer, VI-36b, 481b
 Kairwan, Tunisia, III-446b
 Kaiser, Henry, American manufacturer, VII-390a
 Kaiser's Cup Race IX-345b
 Kalahari desert, S.W. Africa, III-128b; map III-5
 kale, cabbage, VI-64b, 65b
 Kali, Hindu god, I-226a
 Kālidāsa (c. 400 A.D.), Indian poet, XII-209a
 Kalmuck cattle VI-76a
 Kamchadal, tribe of Siberia, U.S.S.R., I-439b
 Kamchatka peninsula, Siberia, U.S.S.R., III-387a; map III-459
 Kamchatka seal, fur, VII-201a
 Kami, Japanese gods, I-434b
 Kandinsky, Wassily (1866-), Russian painter, XII-144b
 Kandy, Ceylon, III-80b; I-102b; map III-229
 Kangaroo II-228a; fighting, IX-367a; fur trade, VI-190b
 'kangaroo', parliamentary procedure, X-3a
 Kang Hsi, Chinese emperor (1662-1722), I-108b
 Kansas, state, U.S.A., III-454a; map III-451
 Kansu, province, N.W. China, III-86b; map III-87
 Kant, Immanuel (1724-1804), German philosopher, V-255a
 kaolin VII-102b
Kapital, Das, Karl Marx, X-70b; V-296b
 Kapok VII-258a; VI-153b
 Karachi, Pakistan, III-227a; map III-229
 Kara-Kalpaks, tribe of Uzbekiskaya, U.S.S.R., I-447a
 Karakoram Mts., Himalayas, N. India, III-216b; IX-333a; map III-229
 Kara Kum desert, Turkmenkaya, U.S.S.R., III-448b; map III-459
 Karamzin, Nikolai (1766-1826), Russian writer, XII-395b
 Karens, Burmese tribe, I-85b
 Karma, in Hindu religion, I-226b
 Karnak, temple, Luxor, Egypt, I-470a; III-151a; *illus.* I-469
 karst, limestone, III-494b
 Kashmir, state, India, I-243a; X-205a; map III-229
 Kashmir goat VII-220a
 Kashmiri language IV-199b
 'Kate Greenaway' style of clothes XI-59b
 Katmandu, Nepal, India, II-310a
 Katydid, grasshopper, II-184a
 Kay, John (1704-78), English inventor, VII-484b
 kayak, Eskimo canoe, IV-83b
 Kazakhs, peoples of Kazakhskaya, U.S.S.R., I-445b
 Kazakhskaya (Kazakstan), republic, U.S.S.R., III-248b; map III-459
 K.C. (King's Counsel), barrister, X-238b

- kea, parrot, II-309b
Kean, Edmund (1787-1833), English actor, V-255b
Keats, John (1795-1821), English poet, V-256b, 415a; XII-308b; sonnets, XII-430a
Kemble, John (1792-1866), leader of the Oxford Movement, V-335a
Ked, parasitic insect, II-228b; *illus.* VI-168
Kedar, son of Ishmael; nomad desert people, Old Testament, Index p. 128b
kedgerei XI-383b
keel, of boat, VIII-29a
keel blocks, shipbuilding, VIII-389a
Keeling (Cocos) Is., Indian Ocean, III-231b; *map* III-322
keep, of castle, XI-45a
Keeper of the Privy Purse X-379a
Keep Fit Movement IX-270b
Keighley, Yorks., wool industry, VII-486a
Keller, Helen (b. 1880), IV-121a, 426a
Kells, Book of, *illus.* XII-200
Kelly, Ned, bush-ranger, X-65b
Kelmscott Press, founded by William Morris, V-323a
kelpie, water-fairy, I-306b
Kelvin, William Thomson, Baron (1824-1907), physicist and engineer, V-257b
Kemal, Mustapha (Atatürk, 1881-1938), Turkish leader and statesman, V-21a; I-479a
Kemano power plant, British Columbia, Canada, VIII-243b
Kenilworth castle XI-47a
Kennel Club IX-199a
Kennelly-Heavyside layer, of atmosphere, VIII-360a
Kenney dam, Nechako river, British Columbia, Canada, VIII-243a
Kensington Palace, London, X-381a
Kent, co., III-157a; cement manufacture, VII-91a; county cricket, IX-158-161; hop-picking, VI-238b
Kentish Glory Moth II-230a
Kentucky, state, U.S.A., III-453a; *map* III-451
Kenya, E. Africa, III-142b, 4b; *map* III-5; peoples of, I-151b, 299a
Kenya, H.M.S. British cruiser, *illus.* X-383
Kepler, Johann (1571-1630), German astronomer, V-258b; III-341a, 24b
Kerats, Christian people of eastern Mongolia, V-186a
Kerensky, Alexander Feodorovich (1881-), Russian revolutionary, X-388a
kerosene, oil, VII-316b
Kerry cattle VI-76b
Kesselring, Albert (1885-), German soldier, X-439b
kestrel, bird, II-139b; IX-211a; *illus.* VI-490
ketch, sailing boat, IX-422b
ketchup (catsup), sauce, XI-75b
kettledrum IX-364b
Kew Gardens, Surrey, IX-78b; VI-290a
key, musical, XII-409a
Keyboard Instruments IX-302a
Keyes, Geoffrey, V.C. (d. 1941), British soldier, X-109a
Keymis, Laurence (d. 1618), adventurer, V-381a
Keynes, John Maynard, Baron (1883-1946), economist, V-259a; IX-23a
keys XI-288a
keystone, of arch, VIII-48a
Khadija, first wife of Mohammed, V-313a
Khakass Autonomous Province, Siberia, U.S.S.R., III-386a; *map* III-459
Khalifa (Caliph), Moslem leader, I-29a, 261a
Khamstin, wind, III-92a, 332a, 365a
Khania (Canea), *port*, Crete, III-117a
Kharkov, Ukraine, U.S.S.R., III-450b; *map* III-459
Khartoum, Sudan, N.E. Africa, III-424a; V-196b; *map* III-5
Khayyām, Omar (11th cent.), Persian poet, V-259a; XII-341a, 460b
Khin-gan Mts., Manchukuo, China, III-275a
Khonds, tribe of S. India, I-247a
Khufu (Cheops, c. 2700 B.C.), Egyptian pharaoh, I-156b; IV-365b
Khyber Pass, N.W. India, III-226; I-3a; *map* III-229
kiang, ass, II-26a
Kicking Horse Pass, Rocky Mts., Canada/U.S.A., III-380b
Kidd, Captain William (1645-1701), pirate, IV-318b
Kidderminster, Worcs., wool industry, VII-487a
kidney bean VI-45a
Kidneys XI-272a; offal, XI-339a
Kiel, port, Germany, III-395b; *map* III-160
Kiel Canal IV-215a
Kiev, Ukraine, U.S.S.R., III-250b; *map* III-459
Kikuyu tribe, of Kenya, E. Africa, I-153
Kilimanjaro Mt., Tanganyika, E. Africa, III-142b; *map* III-5
killifish II-276b
Kilmarnock, Ayrshire, Scotland, wool industry, VII-487a
kiln: brickmaking, VII-58b; cement, VII-91b, *illus.* VII-92; pottery, VII-351b
kilogram, unit of measurement, IV-264b
kilometre, unit of measurement, IV-264b
kilowatt, unit of measurement, VIII-126b
Kim, Rudyard Kipling, V-260a
Kimberley, South Africa, diamond mining industry, VII-158b-160a; *map* III-5
kimono XI-341a
kincajou, mammal, II-339b
kindergarten, *see* nursery schools
kinetic energy VIII-280b
king, see Crown, British; monarchy
King, Clarence (1842-1900), mountaineer, IX-332b
king-bird II-161a
King Charles spaniel IX-195a; *illus.* IX-190
king cobra (hamadryad), snake, II-91b
king crow (drongo) II-124a
kingcup, flower, Index p. 64
Kingfisher II-230b
king penguin II-314a
Kings, books of the Bible, I-421a
King's African Rifles X-42a
King's College, Cambridge, X-67b; London, X-255a
King's Colour, regimental flag, IV-149b
King's Counsel (K.C.), barrister, X-238b
King's Cup, aircraft race, IX-10b
king's evil (scrofula), disease, XI-153a
Kingsley, Charles (1819-75), writer and social reformer, V-259b
King's (Queen's) Bench Division, High Court, X-184a
King's Messengers, Foreign Office couriers, IV-268a, 327a
King's Own Royal Regiment, cap badge, *illus.* X-366
King's School, Canterbury, X-139a
Kinnaird Cup, Marathon race, IX-315a
Kipling, Rudyard (1865-1936), English writer, V-260a
kippers, cured herrings, VI-235a
Kirgiskaya, republic, U.S.S.R., III-251a; *map* III-459
Kirgiz, peoples of Kirgiskaya, U.S.S.R., I-445b
kirk-session, Scottish law, X-250b
Kirkwall, Orkney I., N. Scotland, III-328a; *map* III-396
Kish, ancient city of Mesopotamia, I-458b
Kitchen Design and Arrangement IX-272b, 184a
Kitchener, Horatio Herbert, Earl (1850-1916), English general, V-261b; X-424a
kitchen garden VI-471b
kitchens, history of, XI-78b, 82b
kitchen utensils XI-274b, 81a
kite, bird of prey, II-196a
Kite Fishing VI-257a
kites, flying, IV-155b; toys, IX-305a
Kitimat Hydro-Electric Scheme, Canada, VIII-243a
kitten moth II-330a
kittiwake, sea bird, II-191b
Kiwi, flightless bird, II-231b
Kleist, Heinrich von (1777-1811), German dramatist, XII-172b, 174a
klipspringer, antelope, II-18a
klondike goldfield, N. Canada, III-71a
knawel, weed, VI-480a
Knickerbocker Trust Company, bank, VII-30b
knife XI-444a; manufacture, VII-152a
knight bachelor X-186b
knight-banneret IV-148b
knights, medieval, X-39b; armour, X-37a; chivalry, X-82a; crusades, I-131a; heraldry, IV-184a; tournaments, IX-467a
Knights of St. John I-282a, 366b; III-132a; XI-333a
Knights of the Round Table I-37b; XII-29b
Knights, Orders of, I-281a
Knitting XI-275b; machine, VII-227a
Knossos (Cnossus), Crete, XII-229a; Minoan civilization, I-317a
knots: marine, IV-243a; in rope, &c. IV-215b; in timber, VI-443b
knot-grass, weed, VI-481a

- Knox, John** (c. 1505–72), Scottish Protestant reformer, V–262a; X–390a
- knucklebones, game, IX–448b
- koala (Australian bear) II–232a; fur hunting, VI–190b
- Köchel, Ludwig Von (1800–1877), cataloguer of Mozart's works, V–325a
- Koh-i-noor, diamond, III–131b
- kohl-rabi, cabbage, VI–64b, 65a
- Kokoschka, Oscar (1886–), Austrian painter, XII–144b
- Kola Peninsula, U.S.S.R., III–384b; map III–459
- kolo, folk dance, IX–230b
- komodo dragon, lizard, II–273b
- kookaburra, bird, III–41a
- Koran (Qur'an), sacred book of Islam, I–422a, 260b; V–314a; XII–211b
- Korea, N.E. Asia, III–251b; map III–87; Korean war, X–217b
- Koryaks, peoples of N.E. Siberia, U.S.S.R., I–439b, 436b
- Kosciusko, Mt., S.E. Australia, III–39a; map III–41
- kosher (correct), Jewish food, I–280a
- kraal, Zulu homestead, I–339b; *illus.* I–496
- Krait, snake, II–232b
- Krakatau, volcano, East Indies, III–252a; map III–144
- Krak of the Knights, castle, Syria, X–164a
- Kremlin, Moscow, U.S.S.R., XII–230b; III–304a
- krill, marine living organisms, II–12b
- Krishna, Hindu god, I–420b, 223b
- Kropotkin, Prince Peter (1842–1921), Russian anarchist, X–29a
- kru canoe IV–84b
- Kruger, Paul (1825–1904), Boer president of Transvaal, V–262b
- Kruger National Park, Transvaal, South Africa, IX–343a
- Krylov, Ivan (1768–1844), Russian writer, XII–395b
- Kuala Lumpur, W. Malaya, III–272b; I–292a; map III–144
- Kublai Khan (1216–94), Mongol emperor, V–263a
- Kuhnav, Johann (1660–1722), German composer, XII–365b
- Ku Klux Klan, American secret society, X–407b
- Kuomintang, nationalist party, China, I–110a; V–433b
- Kura River, Azerbaijan, U.S.S.R., III–44a
- Kurdistan, region, Iraq, III–235a
- Kurds, peoples of Iraq, I–255b–256b; of Syria, I–465a; of Turkey, I–480b
- Kurile Is., Japan, III–243b
- Kuwait, sheikdom and port, Arabia, III–18a
- Kyd, Thomas (c. 1557–95), English dramatist, XII–457a
- Kyushu I., Japan, III–243b; map III–245
- Laban, father of Leah and Rachel, Index p. 128b
- La Belle Dame Sans Merci*, Keats, V–257a
- labiate, plant family, Index p. 68
- Labour VII–259a; farm labour, VI–135b; direction of, X–269b; division of, VII–163a; domestic system, VII–164b; factory organization, VII–185a; unemployment, VII–458a; wages, VII–463a; industrial welfare, X–206a
- Labour Exchange X–147a
- Labour Party X–330b; V–208b, 475a
- Labrador, N. Canada, III–311a; map III–69
- Labrador retriever, dog, IX–194a; *illus.* IX–193
- La Bruyère, Jean de (1645–96), French writer, XII–164b
- laburnum, tree, VI–311a; Index p. 68
- Labyrinth, in Greek mythol., Index p. 140b
- Labyrinth-fishes II–233a
- lac, Indian lacquer, XII–233a
- Laccadive Is., Indian Ocean, III–231a; map III–322
- laccolith, rock formation, III–376b
- lace bug II–58b
- lace fern VI–150a
- Lace-making VII–259b; crochet, XI–92b
- lacertids, lizards, II–249a
- Lacewing, insect, II–234a
- Lachesis, a Fate, Greek mythol., Index p. 140b
- lac insect II–363b, 364a; VII–387a
- Lackey Moth II–235a; VI–321a
- Lacquer, varnish, XII–232a; VII–219a
- Lacrosse IX–306a
- lactic acid, in blood-stream, II–286b
- lactose, sugar, XI–336b, 430a
- Lading, Bill of, cargo, VII–42b
- Ladislas II (Jagiello), 14th-cent. King of Poland, I–369a
- Ladoga, lake, Finno-Karelia, U.S.S.R., III–166a; map III–160
- Lady-bird, insect, II–236a, 332a
- lady fern VI–150a, b; *illus.* II–143
- lady's tresses, orchid, II–301a
- La Fayette, Madame de (1634–92), French writer, XII–300a
- La Fontaine, Jean de (1621–95), French writer, XII–145a
- lagoon III–97b
- Lagos, Nigeria, W. Africa, III–316a; map III–5
- Lake District, England, III–155a, 461b
- Lake Dwellings, primitive I–283a
- Lakes III–253a; ox-bow lakes, III–372b
- Lakes, Great, Canada/America, III–201b; map III–318
- Lamaism, religion, Tibet, I–473b; of Mongolia, I–323b
- Lamarck, Jean Baptiste (1744–1829), French natural scientist, V–124a
- Lamas, priests, I–473b, 323b
- Lamb, Charles (1775–1834), English essayist and critic, V–264a; letters, XII–243a
- Lambeth Conference, of English clergy, I–126b
- Lamentations, book of the Bible, I–421a
- laminated boards VII–346a, 343a
- lamplighter IV–440a
- Lamprey, aquatic animal, II–237a
- lamps VIII–224a; XI–284b
- Lamut, peoples of N.E. Siberia, U.S.S.R., I–440a
- Lancashire III–155b; in cotton industry, VII–138b–139b, 141a–142b; county cricket, IX–158b–159b; Wakes Week, IX–478b
- Lancaster, aircraft, X–55b
- Lancaster, Sir James (c. 1554–1618), British sailor, VII–170b
- Lancaster, Joseph (1776–1838), British educationalist, X–446a; school system, *illus.* X–141
- lance *illus.* X–489; lance-rest, *illus.* X–37
- Lancelet, primitive aquatic animal, II–238a
- Lancelot, knight of King Arthur, XII–29b
- lancer, cavalry, X–75a; *illus.* X–73
- lancers, dance, IX–50b
- land agent VI–17a; *see also* estate agent
- landau, carriage, *illus.* IV–87
- land beetles II–41a
- land drainage VI–118a; *see also* land reclamation
- landing, aircraft, IV–292a, 19a
- landing craft, invasion, X–298b, 27b
- landlord and tenant laws VI–258b; rent control, X–369a
- land-mine X–58b
- 'Land of Hope and Glory' by Elgar V–153b
- Land Ownership VI–258a; X–345a; allotment grants to labourers, VI–17b; feudal system, X–151b; peasant farming, VI–135b
- Land Reclamation VIII–245a; VI–118b
- Landscape Art (landscape gardening) XII–233a; VI–196b
- Landscape Painting XII–235a
- Land Warfare, History of, X–227a
- Lanfranc (c. 1005–89), Archbishop of Canterbury, V–14a
- Langland, William (c. 1330–1400), probable author of *Piers Plowman*, XII–8a
- Language IV–217a; dialects, IV–124a; primitive language, IV–425a; conversation, XI–76a
- language, animal, II–12b
- Language, History of, IV–219a
- languages, international, IV–208a
- Language Structure IV–221a
- Lantern-fish II–238b
- Lantern Fly II–239a
- Laocoön, Trojan priest, XII–185a; marble carving, *illus.* XII–440
- Laodicea, Phrygia, early Christian Church of, Index p. 128b
- Laos, state, Indo-China, III–232b; map III–87
- Lao-Tse (Lao-Tzu, b. 605 B.C.), Chinese sage, I–420b, 113a
- La Paz, Bolivia, S. America, III–56a; map III–415
- Lapis Lazuli, stone, III–254b; *illus.* III, opp. p. 288
- Lapland, Arctic land, I–284b
- La Plata, river, *see* Plate
- lappet moth II–236a, 235a
- Lapps, Arctic peoples, I–284b; language, IV–147a

- lapwing (peewit), bird, II-453a; on farms, VI-490a
 larceny, theft, X-119b
 larch II-95a; VI-459-60a; *illus.* VII-402
 Lares and Penates, Roman household gods, Index p. 140b
 Lark, bird, II-239a
 larkspur, delphinium, VI-116a
 La Rochelle, siege (1627-28), V-388b
 Larsen, Henry A., 20th-cent. Canadian explorer, V-12a
 larvae, young insects, II-222a; of fly, II-159b
 larynx, voice-box, XI-100b
 Las Casas, Bartolomé de (1474-1566), Spanish Dominican priest, V-264b
 last, shoe-making tool, VII-52b
 Last Supper I-120b; painting by da Vinci, V-272b; painting by Tintoretto, *illus.* V-446
 La Tène civilization I-97b, 284a
 latex, source of rubber, VI-390a
 Lathes VIII-246b
 Latimer, Hugh (c. 1485-1555), Bishop of Worcester, V-110b
 Latin-America, *see* Central America; South America
 Latin (Roman) alphabet IV-24a; XII-240b
 Latin handwriting IV-180a
 Latin Language IV-222b; languages derived from, IV-375a; as medium of scholarship, IV-208a; I-401b
 Latin Literature XII-239a; elegy, XII-127b epic poetry, XII-134a; epigrams, XII-135b; histories, XII-191b; lyrics, XII-248b; odes, XII-307b; pastorals, XII-334b; satire, XII-404a
 latitude, lines of, IV-254a; determination of, for navigation, IV-288a
 La Tour, Maurice Quentin de (1704-1788), French painter, XII-333a
 latrines XI-393b
 Latter-Day Saints, Church of the (Mormons), I-328b
 Latvia, republic, U.S.S.R., III-254b; *map* III-459
 Latvian language IV-420a
 Laud, William (1573-1645), Archbishop of Canterbury, V-265b; IV-47a
 Lauds, religious office, I-325a
 launching, ships, VIII-391a; traditional ceremony, IX-473b
 Laundry Equipment XI-281b; safety devices, VIII-378b
 Laundry (History) XI-278a
 Laundry (Methods) XI-280a
 laurel, shrub, II-96b
 laurustinus, flowering shrub, VI-165b
 lava, volcanic matter, III-466b
 lavatory XI-393a, 231b
 lavender, shrub, VI-302b; sea lavender, VI-56a
 Lavengro, George Borrow, V-52a
 Lavoisier, Antoine Laurent (1743-94), French scientist and reformer, V-265b
 law: canon law, X-69b; civil law, X-90b; criminal law, X-118a; international law, X-216a; military law, X-116a; theory of justice, X-221a
 Law, English, X-231a; assize courts, X-48a; barristers, X-237a; by-laws, X-65b; Court of Appeal, X-29b; Habeas Corpus, X-181a; High Court, X-184a; judges, X-218a; jury system, X-220a; law officers, X-237a; out-lawry, X-305a; solicitors, X-239a
 Law, History of, X-234a
 Law Courts X-231a; trial, X-464b; Scottish law courts, X-391a
 Lawes, Henry (1596-1662), English composer, XII-426a
 Lawes, Sir John Bennet (1814-1900), British scientist, VI-8b, 36a
 lawn bee II-36b
 lawnmower VI-260a
 Lawns VI-260a
 Lawn Tennis IX-307a
 Law Officers X-237a
 Lawrence, David Herbert (1885-1930), English novelist and poet, V-266b
 Lawrence, John, Baron (1811-79), Viceroy of India, V-267a
 Lawrence, St., Index p. 135b
 Lawrence, Sir Thomas (1769-1830), British painter, XII-352a; *illus.* XII, opp. p. 48
 Lawrence, T. E. (Lawrence of Arabia 1888-1935), V-267b
 Law Society X-239a, 219a
 law-suit X-90b
 Lawyer X-237a
 lawyer fish II-94a
 lawyer's wigs, fungus, *illus.* II-171
 Laxton, Nottinghamshire, VI-309a; XI-472a
 layering, plant propagation, VI-343a, 182b
 laying battery house, poultry, VI-358a
 laying-off loft, shipbuilding, VIII-389a; *illus.* VIII-311
 Lays of Ancient Rome, Macaulay, V-287a
 Lazar-house X-188b
 Lazarus, beggar of parable, Index p. 128b; brother of Martha and Mary, Index p. 128b
 l.b.w. (leg before wicket), cricket rule, IX-154a, 163a
 L.C.C. (London County Council) X-253b
 Lead VII-263b; in assaying, VII-21b; distribution in earth, *map* III-284; mining in Britain, VII-297a; lead poisoning, VIII-379a
 lead arsenate, insecticide, VI-248a
 leadbeater's cockatoo, parrot, II-310a
 Leadenhall Market, London, VII-353a
 leading article, newspaper, IV-300b
 leaf, *see* leaves
 leaf-bud cutting, plant propagation, VI-184a, 343a
 leaf-buds, of plants, II-410a
 leaf-cutting ant II-20a
 leaf insect II-412a; *illus.* II, opp. p. 336
 leaf roll, potato disease, VI-341a
 Leaf-rollers, moths, II-239b
 League Challenge Cup and Championship, Rugby Football, IX-418b
 League football IX-418a
 League of Nations X-212b; Permanent Court of International Justice, X-181b; relief work, X-362b; sanctions, X-389a
 Leah, wife of Jacob, Old Testament, Index p. 128b
 Leal, Valdés (1622-90), Spanish painter, XII-432a
 Leander, Greek mythol., Index p. 140b
 Leander Club, rowing, IX-76a
 leap-year III-68b
 Lear, Edward (1812-88), XII-70a, 93a-94a
 leasehold tenure, property, X-345a; VI-259a
 lease-lend, *see* lend-lease
 Leather VII-264b; currying, VII-150b; hides, VII-224b; tanning, VII-424a
 Leather-cloth VII-266a
 leather-jacket (grub of crane-fly) II-104b; VI-326b
 leather-urchin, aquatic animal, II-378a
 Leavers, John, 19th-cent. British inventor, VII-262b
 Leaves II-240a; photosynthesis, II-318a
 Lebanese I-464a
 Lebanon III-429b; *map* III-17
 Lebrun, Charles (1619-70), French painter, XII-467b
 Leclanché (primary) battery cells VIII-19b
 Le Corbusier (Charles-Edouard Jeanneret, 1887-), architect, XII-265a; flat designs, XI-173a
 Leda, in Greek mythol., Index p. 140b
 ledger, book-keeping, VII-49a
 ledger-pasting machine, for calculation, VII-1b
 Ledo Road, Burma, IV-72b
 Lee, Robert Edward (1807-70), American general, V-268a
 Lee, William (d. 1610), British inventor, VII-227b
 leech, animal, II-482a
 Leech, John (1817-64), caricaturist, IV-197b
 Leeds, Yorks., clothing industry, VII-109b; musical festival, IX-341a; University, X-346b; wool industry, VII-486a
 Leeds and Liverpool Canal IV-39a; *map* IV-83
 Lee-Enfield rifle X-491a
 Leek, Staffs., hosiery industry, VII-228a; silk industry, VII-396a
 leek moth, pest, VI-305b
 leaks VI-305a
 Leeuwenhoek, Anton van (1632-1723), Dutch scientist, XI-304b
 Leeward Isles, West Indies, III-484b
 legal tender, currency, VII-149b
 legation, diplomatic office, X-163a
 Legend I-286b; *see also* mythology
 Léger, Fernand (1881-), French painter, XII-439a
 legerdemain, conjuring trick, IX-150a
 Leghorn, breed of poultry, VI-356a; *illus.* VI, opp. p. 336
 legion, Roman, X-227b
 Legion of Honour X-188a
 legislature, *see* parliament
 Legnano, battle of (1176), V-171b
 legume (fruit contained in pod) II-167b
 Leguminous Crops VI-261b; II-292b
 Leibnitz, Gottfried Wilhelm (1646-1716), German philosopher, V-269a; calculating machine, IV-116a
 Leica camera IX-373b
 Leicester, wool industry, VII-487a

- Leicester's Alms-houses, Warwick, X-18a
 Leicestershire III-156a; in county cricket, IX-158b
 Leipzig, Germany, III-185b; fair, VII-441b; fur trade, VII-200a
 Leith, *port*, Scotland, III-149b; *map* III-396
 Lely, Dr. C., 19th-cent. Dutch engineer, VIII-495a
 Lely, Sir Peter (1618-80), painter, XII-49a; *illus.* XII, opp. p. 48
 lemming, vole, II-449a, 267b
 lemons VI-89a, 88a; II-168b
 Lemster Ore, wool, VII-479a
 Lemur, mammal, II-242b
 Lena, *river*, Siberia, U.S.S.R., III-386b; *map* III-459
 Le Nain brothers, 17th-cent. French painters, XII-161b
 Lend-lease X-239b
 Length-measuring Instruments VIII-250a; comparator method of measuring linear expansion, VIII-155a
 Lenin (Vladimir Ilyich Ulyanov 1870-1924), Russian revolutionary and statesman, V-269b; X-29a, 110b
 Leningrad (St. Petersburg), U.S.S.R., III-255a; *map* III-459; siege of, X-411a
 Lenoir, Etienne, cent., 19th French inventor, VIII-153b
 Le Nôtre, André (1613-1700), French landscape designer, VI-195a, 196b
 Lens VIII-251b; cine-projector, VIII-73b; electromagnetic, VIII-139b; telephoto, VIII-59b; wide-angle, VIII-59b
 Lent I-123a; IX-114b
 lenten rose, winter-flowering plant, VI-492b
 Lentils VI-264a; XI-48b
 Lent races, Cambridge boat-races, IX-75b
 Leo X (pope 1513-1521), V-285b, 304b
 Leonardo Da Vinci (1452-1519), V-271a; XII-155a; drawings, XII-113a
 Leonidas (d. 480 B.C.), Spartan king, I-450a
 Leonids, meteors, III-286a
 'Leonora' Overtures, Beethoven, V-37a
 Leopard (panther) II-243b; hunting, IX-66a
 leopard moth II-179b
 leopard snake II-395a
 Lepanto, battle of (1571), X-399a; *illus.* X-400
 leprechaun, fairy, I-169b
 leprosy XI-459a; in Medieval Europe, X-348a, 188b; leper hospitals, X-427a; work of Father Damien, V-118b
 Lermontov, Mikhail (1814-41), Russian poet, XII-395b
 Lesseps, Ferdinand de (1805-94), French engineer, IV-307a, 440b
 Lessing, Gotthold Ephraim (1729-81), German writer, XII-172b, 172a
 Letchworth, Herts., X-172b
 Lethe, *river*, Greek mythol., Index p. 140b
 Lettering XII-240a
 letter of credit VII-34a, 148a
 letterpress printing VII-357b
 Letters XII-241b; IV-182a
 Letters Patent X-240b; VII-331b
 Letts, Latvian peoples, I-286b
 lettuce VI-396a; food value, XI-184b; in salads, XI-391a; family, Index p. 71
 leucotomy, in surgery, XI-311a
 leukaemia, disease, XI-27a
 Leuthen, battle (1757), X-439b
 Levant Company VII-94b, *illus.* VII-96
 Levant states (Syria and Lebanon) III-429b
 level and staff, surveying instruments, VIII-429a
 Levellers, in English civil wars, V-112b; Irish secret society, X-407a
 Lever Brothers and Unilever, manufacturers, VII-279a
 Levers VIII-255a; screw leverage, VIII-382b
 Levi, son of Jacob, Old Testament, Index p. 128b
 Leviathan, monster, Hebrew mythol., I-430a
 Leviathan, Hobbes, V-225a
 Levites, Hebrew priestly tribe, I-385a; Index p. 128b
 Leviticus, book of the Bible, I-421a
 Lewes, battle of (1264) V-317b
 Lewis, C. Day (1904-), British poet, XII-272b
 Lewis, John, Ltd., VII-130a
 Lewis, Matthew Gregory (Monk Lewis, 1775-1818), XII-389a
 Lewis, Sinclair (1885-), American writer, XII-16b
 Lewis I., Outer Hebrides, W. Scotland, III-215a; *map* III-396
 lewisite, poison gas, X-174a
 lexicon, dictionary, IX-356b
 Leyden jar (electric condenser) VIII-92b
 Leyhill prison X-341a
 Leys, crop, VI-264b
 liabilities, financial, VII-48b; business companies', VII-266b
 liability, employers', VII-246b
 liana, climbing plant, III-169b
 Liaquat Ali Khan, Pakistani statesman, X-309a
 Libel and Slander X-240b
 liberal arts X-138a; XII-24b
 Liberals, political party, X-329b; leadership of Gladstone, V-191a
 Liberia, W. Africa, III-208b; X-412b
 'Liberty' ships, in Second World War, VIII-332a
 Libraries IV-224b; Bibliothèque Nationale, IV-44a; Bodleian, IV-46b; British Museum, IV-66b; Cambridge University, IV-79a; Congress, U.S.A., IV-111a; London, IV-244b; Vatican, IV-475a
 Libya (Tripoli), N. Africa, III-256b; *map* III-5
 Libyan desert, N. Africa, III-257a, 388b
 lice, *see* louse
 licensing laws of liquor X-449b; VII-233a
 lichens, algae and fungi living together as one plant, II-342b; used for dyeing, XI-127a
 Lickey railway gradient IV-37a, 32b
 Liebig, Justus von (1813-73), German chemist, VI-8b
 Liechtenstein, III-257b
 lieder, songs, XII-426b
 Liegnitz, battle (1241), X-173b
 Lif, character in Norse mythol., I-345a
 life, length of: animals, II-187a; life cycle, *table*, Index p. 144; humans, XI-283b
 life assurance, *see* life insurance
 life-belt IV-384a; VII-258b
 Lifeboat IV-227b; of ship, IV-384a
 Life Cycle XI-283b
 life insurance VII-246b; XI-255b
 'lift', in aeronautics, IV-151b-153b
 Lifts and Escalators IV-228b; boat lift, IV-238b
 Light III-258a, 102b; plant growth, II-318a; polarization, III-258b; polarization apparatus, VIII-327a; radiation of, III-359a; spectroscopy, VIII-401b
 Light Brigade, Charge of the, X-118a
 Lighthouses and Lightships IV-230a; VIII-121a
 lighting, artificial, VIII-224a; domestic, XI-284b; street, X-433b
 Lighting, History of, XI-284b
 lightning III-437a; effect on telecommunications, IV-103a
 Lightning, aircraft, X-153b
 lights, navigation: aircraft, IV-4a; ship, IV-294b, 380b
 Light Signalling IV-233a
 light-year, astronomy, III-30a
 lignite (brown coal) VIII-172a; III-96b; ammonia produced from, VII-16b
 lilac, flowering shrub, VI-165b; Index p. 67
 liliaceae, plant family, Index p. 69
 Lilienthal, Otto (1848-1896), German air pilot, IX-256b
 Lilies II-245a; Index p. 69; cultivated, VI-265a
 Lille, France, III-175a; *map* III-173
 lily of the valley II-245b; Index p. 69
 Lima, Peru, S. America, III-260a; *map* III-415
 Lima beans VI-46b
 Limbourg brothers, early 15th-cent. Flemish artists, XII-203a
 lime (calcium oxide) VII-93a; XI-357b
 lime, fruit, VI-88a, 89b
 Lime, in soil, VI-268b, 381b
 lime, tree, VI-456b; wood, VII-224a
 limerick, verse, XII-93b
 Limestone III-261a, 380a; in building, VIII-270a; chalk mining, VII-92b
 limestone districts VII-416a; III-126b
 Limited Companies VII-266b; auditing, VII-24b; dividends, VII-162b; loans, VII-156b
 limited liability, business companies, VII-267a
 Limoges, France, enamels, VII-177a
 Limpet, mollusc, II-247a
 Limpopo, *river*, S. Africa, III-411b; *map* III-5
 Lincoln, Abraham (1809-65), President of U.S.A., V-273b
 Lincolnshire III-157a; iron ore deposits, VII-252b

Lincoln's Inn, London, X-237a
 Lindisfarne I., Northumberland, I-368b
 Lindisfarne gospels XII-28a; *illus.* IV-181
 line block, printing, VII-363b
 linen XI-227b, 19b
 linenfold, ornament, *illus.* XII-320
 Linen Industry VII-268a; bleaching, VII-269b, 44b; textile printing, VII-432b
 Liner IV-234a, 405a; *Queen Elizabeth*, IV-341a
 ling, fish, II-94a; *illus.* II-93
 ling, heather, VI-323a
 Ling, P. M. (1776-1839), Swedish gymnast, IX-269b-270a
 lingthorn, starfish, II-406b
 link-boys X-433b
 'Link' trainer, for air pilots, IV-14b
 Linnaeus, Carl (1707-78), Swedish naturalist, V-275a
 linnet, bird, II-144a
 Linoleum VII-270a
 linotype machine, printing, VII-359b
 Linseed VI-270a; cake for cattle food, VI-169b; oil, VII-321b
 lion-fish II-367a
 Lions II-247b; lion-hunting, IX-64b
 Liotard, J. E. (1702-89), Swiss painter, XII-334a; *illus.* XII-333
 lipase, fermenting agent, II-142a
 Lippi, Fra Filippo (c. 1406-69), Florentine painter, XII-155a; V-53a
 lip-reading IV-119a
 lipstick VII-135a; XI-292b
 Lipton, Sir Thomas, Baronet (1850-1931), British grocer, VII-218a
 Liquefaction of Gases VIII-256b; compressor, VIII-86b
 liqueurs XI-493a
 Lisbon, Portugal, III-261b; *map* III-160; earthquake (1755), III-142a
 Lister, Joseph, Baron (1827-1912), English surgeon, V-276a
 Lister, Joseph Jackson (1786-1869), British inventor XI-305b
 Liston, Robert (1794-1847), British surgeon, XI-4a
 Liszt, Franz (1811-86), Hungarian composer, V-277b; Piano Sonata, XII-424a; symphonic poems, XII-366a
 Li-Tai-Po, Chinese poet of 8th cent. A.D., I-106a
 litchi, tropical fruit, VI-464a
 literary agent IV-48a
 Literary Criticism XII-244a; periodicals, XII-336b
 Lithography, printing method, XII-245a
 lithopone, pigment, VII-325a
 Lithuania, republic, U.S.S.R., III-262a; *map* III-459; people of, I-286b; language, IV-420a
 litre, unit of measurement, VIII-272b
 Litter, conveyance, IV-236a
 Little Bear (Ursa Minor), constellation, III-109a; *illus.* III-107
 Little Flowers of St. Francis, 14th-cent. collection of Italian tales, V-169a
 Little-Go, Cambridge examination, X-478b
 Little Parliament (1653) V-114a
 Little Ship Club IX-346b

lituus, ancient musical instrument, IX-340a
 liver, human, XI-100b, 101b; offal, XI-339a
 liver fluke, parasitic worm, VI-315b
 Liverpool, Lancs., III-262b; Cotton Exchange, VII-279b; Mersey Tunnel, IV-266b; St. George's Hall, XII-370a; *illus.* XII-369; Playhouse, IX-402b; University, X-346b
 liverwort, plant, II-276b
 Livery companies, of City of London, VII-105a
 livestock: cattle, VI-74a; goats, VI-203b; horses, VI-239a; pigs, VI-328a; sheep, VI-403a
 livestock breeding VI-426b; improvements in 18th cent., VI-7b; primitive, VI-4a; tropical, VI-22a
 Livingstone, David (1813-73), Scottish medical missionary, V-278b
 Livonia, ancient province of Latvia, I-286b
 Livy (Titus Livius 59 B.C.-A.D. 17), Roman historian, V-279b
 Lizards II-249a; frilled lizard, II-2b, *illus.* II, opp. p. 272; spiny lizard, II-2b; skins, VII-226a
 Ljubljana, Yugoslavia, III-495a
 Llama, mammal, II-252a; IV-42b
 llanos, grasslands of S. America, III-196b
 Lloyd Barrage, Indus river, W. Pakistan, VIII-258b
 Lloyd George, David (1863-1945), British statesman, V-279b
 Lloyd's, association of insurance underwriters, IV-236a
 Lloyd's Register of Shipping IV-236b
 loach, freshwater fish, IX-15b
 loader, mechanical, mining machinery, VIII-304a
 loading: aircraft, IV-12a; ships, IV-322a
 loading gauge, railway, IV-32a, 169a
 loam, soil, VI-420b, 422b
 Loans VII-271a, 148a, 32a; to banks, VII-34a; bearer bond, VII-45a; to government, X-284b; interest, VII-247b, 37a; international, VII-247b; to limited companies, VII-156b; National Debt, X-282a; pawnbroking, VII-332b; security, VII-384b; usury, VII-460b
 lobelia, garden flower, VI-123a
 Lobengula, 19th-cent. Matabele chief, I-403b
 Lobster II-253a, 109b; lobster fishing, VI-103a; preparation for table, XI-406a
 lobster moth II-330a; caterpillar, *illus.* II-77
 lobster-pot VI-103a
 Local Authorities X-241b; by-laws, X-65b
 Local Defence Volunteers X-178b
 Local Education Authorities X-244b
 Local Finance X-245a
 Local Government, History of, X-246b
 Local Government Officers X-249a
 Local Government (Scotland) X-250b
 Local Government (U.S.A. and Europe) X-252a

Localization of Industry VII-271b 455b; development areas, X-132b
 location, in film making, IX-223b
 loch, lake, III-253a
 Loch Buy brooch XI-267a
 Lochner, Stefan (c. 1410-51), German painter, XII-170b
 Loch Ness Monster II-373b
 Locke, John (1632-1704), English philosopher, V-280b; theory of memory, XI-306a; theory of natural law, X-222b
 Lockhart, John Gibson (1794-1854), Scottish author and critic, XII-44b, 336b
 'lock-o-block' signalling IV-33b
 lock-outs, in industrial disputes, VII-452a
 Locks and Bolts XI-288a
 Locks and Weirs IV-237a; construction, VIII-62a, 83b; of docks, VIII-109a; invention, IV-79b, 363a; timber used, VII-223b
 Locomotives IV-239a; brakes, *illus.* VIII-35; construction, VIII-364b; *see also* engines, history of; internal combustion engine
 Locomotives, Steam, IV-241a; *see also* steam engine
 Locomotives Act (1865) IV-272a
 Locusts VI-270b; II-183a; migration, II-268b; seventeen-year locust, II-86b
 lode, vein of metal ore, VII-294a
 lodestone, mineral with magnetic properties, III-270a
 Lodge, Sir Oliver (1851-1940), British physicist, IV-486b; I-454b
 Łódź, Poland, III-344b
 loess, rock, III-378b, 86b
 Lofoten Islands, Norway, III-320a; *map* III-160; commando attack in Second World War, X-108b
 Log, Ship's, IV-243a
 Logan, Mt., Canada, III-380b; *map* III-318
 loganberries VI-372a; propagation, VI-183b
 Logarithms VIII-259b; IV-115b
 loggia, verandah, XI-471a
 Logging VI-271b
 logic, branch of philosophy, I-362b
 Loire, river, France, III-175b; *map* III-173
 Loki, god, Norse mythol., I-344b
 Lombardic script IV-181a
 Lombards, Italian peoples, I-263b; Lombard bankers, VII-31b
 Lombardy, region, N. Italy, I-263b
 Lomonosov, Mikhail (1711-65), Russian writer, XII-395a
 London III-263a; City of London, X-85b; galleries, XII-28b; industries, VII-272b; London County Council, X-253b; markets, VII-280b; Metropolitan Police, X-321a; museums, X-277a; Port of London, IV-323a; river police, X-375a; Thames, III-433b; Tower of London, X-370a; University, X-254b; Westminster, *illus.*, X-95.
 London, Jack (1876-1916), American author, IV-43a
 London Airport IV-17b, 19a

- London Bankers' Clearing House VII-108b
London Bridge IV-243b
London County Council X-253b
London Gazette IV-304a
 London General Omnibus Company IV-75a
 London Hospital X-189b
London Library IV-244b
London Magazine, periodical, XII-336b; V-264b
 London Missionary Society I-130a
 London pride, flower, VI-123a
 London School of Economics X-255a
London Transport IV-245a, 279a
London University X-254b
 long-bow, weapon, X-489b, 200b
 longevity (length of life), animals, II-187b; Index p. 144
Longfellow, Henry Wadsworth (1807-82), American poet, V-282a
 long-horn (longicorn) beetle II-41b; as pest, VI-466a
 longhorn cattle VI-79a, 8a
Long-horn Moths II-253b
 longitude, lines of, on maps, IV-254a; at sea, IV-288a
 Long Parliament (1640-60) X-97a
 Long Range Desert Group X-108b
 long-sightedness XI-152b
Long Tom, gun, X-46a
 Lonsdale Belt, boxing award, IX-82b
 loom VII-489b; carpet loom, VII-84b; hand loom, *illus.* VII-490a; invention of power loom, VII-485a; Jacquard loom, *illus.* VII-269b
 loon, bird, II-120b
 Loopers, caterpillars, II-254a
 looping the loop, aircraft manoeuvre, IV-1a
 loosestrife, yellow, plant, Index p. 66
 Lopez, Francisco (1827-70), Paraguayan statesman, I-351b
 'Loran' (Long Range Navigation), navigation aid, IV-291b, 297a
 Lorca, Garcia (1899-1936), Spanish poet, XII-433b
 Lord Advocate, in Scottish law, X-237a
 Lord Chamberlain X-378b; licensing of plays, X-76a
 Lord Chancellor X-218b, 195a
 Lord Chief Justice of England X-219a
 Lord Great Chamberlain X-114a
 Lord High Admiral X-3b
 Lord Lieutenant of county X-247a, 256a
 Lord Mayor X-260b; of London, X-86b; Lord Mayor's Show, IX-357b
 Lord President of the Council X-267b
 Lord Privy Seal X-267b
 Lord Provost, in Scottish local government, X-251b
 lords, peerage, X-316a; House of, X-194b; precedence, XI-416a
 lords and ladies, plant, Index p. 70
 Lords of Appeal in Ordinary X-219a, 30b
 Lord's Cricket Ground, London, IX-163b
 Lord's Day Observance Act X-109b
 Lords Spiritual X-194b
 Lord's Supper (Holy Communion), sacrament of Christian Church, I-417a
 Lords Temporal X-194b
 Lord Steward X-378b
 Lorelei, siren, German folklore, I-307a
 Lorenzetti brothers, Pietro and Ambrogio, 14th-cent. Sienese painters, XII-421a
 lorgnette XI-419a
 Lorimers' (Loriners') Company VII-107b
 Loring, William, library bequest 1415, IV-79a
 loris, lemur, mammal, II-243a
 Lorraine, *region*, E. France, III-173b
 Lorraine, painter, *see* Claude
 Lorraine Bridge, Berne, Switzerland, IV-64a
 lorry IV-277a; farm vehicle, VI-144b; lorry loaders, VIII-278b
 lory, purple-capped, parrot, II-310a
 Los Angeles, California, U.S.A., III-265b; *map* III-451
 Lot, nephew of Abraham, Index p. 128b
 Lottery, gambling, IX-310a
Lotus of the True Law, Buddhist sacred book, I-420b
 loudness, measurement of, VIII-1b
Loud-Speaker IV-246a; VIII-448a
 Loughborough, Leics., wool industry, VII-487a
 Louis IX, St. (1214-70), King of France, V-282b
 Louis XIV (1638-1715), King of France, V-283a; court of, XI-146a
 Louis XVI (1754-93), King of France, X-168b; execution, *illus.* X-72
 Louis, Joe, boxer of 20th cent., IX-84a
 Louisiana, *state*, U.S.A., III-453a, 292b; *map* III-251
 Lourdes, S.W. France, I-368b; *illus.* I-367
 Lourenço Marques, *port*, E. Africa, III-142b; *map* III-5
Louse II-255b; household pest, XI-230b
 lowestwort, semi-parasitic plant, II-308b; Index p. 68
 Louvain, Belgium, town-hall, XII-149b
 Louvre palace, Paris, XII-246b
 love-bird II-309a
 Lovelace, Richard (1618-58), English poet, XII-258a
 lower case type, printing, VII-359a
 Lowestoft, battle (1665), V-397a
 Low German, language division, IV-169b
 Loyola, Ignatius de (1491-1556), V-284b
 Lualaba, *river*, C. Africa, III-105b
 Lübeck, *port*, Germany, X-88a
 lubrication VIII-171b
 Lucan (Marcus Annaeus Lucanus, A.D. 39-65), Roman poet, XII-239b
 lucerne (alfalfa), plant, VI-263a
 Lucian (c. A.D. 115-c. 200), Greek philosopher, XII-188b
 Lucifer, evil spirit, I-430a; the 'day star' Index p. 128b
 Lucilius, Gaius (c. 180-102 B.C.), Roman satirist, XII-404a
 Lucretius (Titus Lucretius Carus c. 99-55 B.C.) V-158a
 Luddites VII-274a
Luftraffe, German air force, X-9b
 luggage XI-210a; medieval, XI-53b
 lugger, fishing boat, VI-156b
 Lu Hsün (1881-1936), Chinese writer, XII-76b
 Luke, St., apostle, Index p. 128b; gospel of, I-422a, 70b
Lullabies XI-290a
 Lully, Giovanni Battista (1632-87), Italian composer, XII-310a; IX-150a
Lumber Camps VI-272a
 lumberjacks, VI-271b, 272b
 lumen, unit of measurement, light, VIII-225a
 Lumie dam, Italy, VIII-104b
Lumpsucker (sea-hen), fish, II-256a
 'lumpy jaw' (actinomycosis), animal disease, VI-22a
 Lunar Society V-372a
 lunatic asylums X-263a; work of Lord Shaftesbury, V-409b
Lung-fish II-256a
 lungs, animal, II-349a; human, XI-381a; offal, XI-338b
 lungwort, plant, Index p. 67
 Lupercalia, pagan festival, IX-284a
 Luperco, Roman god, IX-284a
 Lupins, Field, VI-274a; garden, VI-274b, 233a; family, Index p. 68
Lutes and Guitars IX-311a
 luth, turtle, II-440b
 Luther, Martin (1483-1546), leader of Protestant Reformation in Germany, V-285b; hymns, XII-197a; doctrine of salvation, I-287b
 Lutheran, protestant denomination, I-287a
 Lutine Bell, Lloyd's, IV-236b; *illus.* VII-246a
 Luton, Beds., wool industry, VII-487a
 Lutyens, Sir Edwin (1869-1944), British architect, III-123b
 Lützen, battle of (1632), V-204b
 Luvians (Proto-Hittites), ancient peoples of Asia Minor, I-228b
Luxembourg III-266a
 Luxor, Egypt, I-470a; III-151a
 Luzon, I., Philippines, III-339a; *map* III-87
 Lyceum, school founded by Aristotle, V-17a
Lycidas, Milton, V-310b
 lycid beetle II-332a
 Lydia, *region*, ancient Greece, I-205b; V-111b
 lye, washing substance, XI-279a
 lymphatic glands XI-29a
 lynx, wild cat, II-78b
 Lyonesse, in Arthurian legend, III-396a
 Lyons, France, silk industry, VII-394b
 Lyons (J.) & Co. VII-230a
 lyre, musical instrument, IX-339a
Lyre-bird II-257a
Lyrical Ballads (1798) V-490b, 98b
Lyric Poetry XII-247b
 M.A. (Master of Arts) X-479b; XII-24b
 Maas (Meuse), *river*, Belgium/France, III-50a; *map* III-173
 MacAdam, John L. (1756-1836), road engineer, IV-247a
Macadam Roads IV-247a

- macaque, monkey, II-274b
 macaroni XI-349b
 macaroons XI-25b
Macaulay, Thomas Babington, Baron (1800-59), historian, V-287a; XII-137b
 macaw, parrot, II-309a
Macbeth, Shakespeare, XII-457a, 416a
 Maccabees, heroes of Maccabean wars, Index p. 128b; Jewish sacred writing, I-421b
 Macclesfield, Cheshire, silk industry, VII-396a
 mace, spice crop, VI-423b; *illus.* VI-424
 mace, symbol of office, X-261a; *illus.* X-426
 maceration, oil extraction, VII-320b
Machiavelli, Niccolo (1469-1527), Florentine statesman and political philosopher, V-287b
 machine accounting VII-1a
 machine efficiency VIII-281a
 machine-gun X-490b; *illus.* X-43
 machinery: assembly and erection, VIII-164a; replacing human labour, VIII-334b; mechanical handling of goods, VIII-277b; safety devices in factories, VIII-378a; machinery wreckers (Luddites), VII-274a
 machine setter VIII-335a
Machine Tools VIII-261a; use in mass production, VIII-334b
 macintosh VII-465b
Mackenzie, Sir Alexander (1763-1820), Scottish explorer, III-267a
Mackenzie River, N. Canada, III-267a; *map* III-318
Mackerel II-258a; fishing, VI-156b; IX-18b
 mackerel sky III-94b
 Macquarie Harbour, Australian convict settlement, X-65a
 Macready, William Charles (1793-1873), actor-manager, V-256a
 MacRobertson air race IX-10b
 MAC ship X-7b
 McKenzie Sanctuary, animal reserve, Victoria, Australia, IX-344b
 McKinley, *mt.*, Alaska, N. America, III-7a; *map* III-318
 M'Combie, William of Tillyfour (1805-80), agriculturalist, VI-78b
Madagascar III-268a; *map* III-5
Madame Bovary, Gustave Flaubert, V-166b
 madder, plant, Index p. 67
Madeira, I., Mediterranean Sea, III-269a; *map* III-322; wine, VII-472b
 Maderno (Maderna, Maderni), Carlo (1556-1624), Italian architect, XII-401b
 Madison, James (1751-1836), American statesman, V-206a
 madonna lily VI-265b-268a
 Madras, *state*, India, X-205a; VII-172a
 Madrid, Spain, III-269a; *map* III-160
 madrigals, XII-427b, 448b
 Madura, India, temples, XII-208a, b; *illus.* XII, opp. p. 209
 Maecenas, Gaius Cilnius (c. 70-8 B.C.), IX-5b
 maelstrom, whirlpool, III-441a
 Maes, Nicolas (1632-93), Dutch painter, XII-115a; *illus.* XII-166
 Mafia: Czech secret society, I-136a; Italian Secret Society, X-406b
Magazines and Periodicals IV-247b; XII-336a
 Magdalene, *see* Mary Magdalene
 Magdeburg, Germany, III-185b; *map* III-186
 Magellan, Ferdinand (c. 1480-1521), Portuguese explorer, V-288b
 Magellan, Straits of, S. America, III-85b; *map* III-415
 Maggiore, *lake*, N. Italy, III-241a
 maggot II-160a, 50b
 Magi, priestly caste, Zoroastrian religion, I-495a; of Christian story, I-274a
Magic I-288a; spells and charms, I-450a; witchcraft, I-489b
Magic Flute, The, Mozart, V-324b
 Maginot line, fortification, X-165b
Magistrates' Court X-256a, 465b; Scottish, X-391b
 Magna Carta X-257b
 Magna Graecia (S. Italy) I-409a
 magnesia, medicine, VII-275b
 magnesite, metal ore, VII-275a
 magnesium VII-275a; discovery, V-130a; distribution in earth, *map* III-284
Magnesium, Extraction of, VII-275a; VIII-283a
 magnetic compass IV-109b
Magnetic Materials VIII-264a
 magnetic mines X-59a
 magnetic recording, sound, VIII-401a
Magnetism III-270a; creating electric current, VIII-226a; induced by electric current, VIII-128b; used by electric motors, VIII-133a; measurement of magnetic force, VIII-273a
 magnetite, iron ore, VIII-233a
 magnetometer VIII-341b
Magnets VIII-265a
 magnifying lens VIII-295b, 435b
 magnolia, evergreen shrub, VI-324b, 311a
 Magog, *see* Gog and Magog
 magpie II-109a; taming, IX-107a
 magpie lark II-389b
 magpie moth II-255a
 maguey cactus III-288a
 Magyars, Hungarians, I-233a
 Mahavira, founder of Jain religion of India, 6th cent. B.C., I-266a
 Mahayana (the Great Way), branch of Buddhist religion, I-82b
 Mah-jongg, Chinese game, IX-314a
 mahogany, wood, VII-224a; furniture, VII-75b
 Mahommed (c. A.D. 570-632), founder of Islamic religion, V-312b
 Mahrattas, peoples of N.W. India, I-244b
 Maiden Castle, Dorset, I-150b; *illus.* I-99
 maidenhair ferns VI-150a
 maiden trees VI-184a
 mail: delivery, IV-326b; express service, IV-145b; mail train, IV-329b; postmarks and postage stamps, IV-324b; post office, VI-329a
 mail armour X-36b-37b
 Maillol, Aristide (1861-1944), French sculptor, XII-265b
Mail-order Trading VII-275b
 Maimonides, Moses (1135-1204), Jewish philosopher, I-279b
 Main, *river*, S.W. Germany, III-187a, 176a
 Maine, *state*, U.S.A., III-452a; *map* III-451
 Mainz, Germany, wine trade, VII-472a
Maize VI-275a; XI-48a; grain structure, II-379a, 167b
 Majlis, assembly, Persian government, I-356b
 majolica ware, pottery, III-46a
 Majorca, *I.*, Mediterranean Sea, III-45b; *map* III-160
Make-up XI-292a
 Malacca, Malaya, I-291a; Straits, III-271b; *map* III-144
 Malachi, Hebrew prophet, Index p. 129a; Book of, I-68b
 malaria, tropical disease, XI-459b; quinine, XI-304b
 Malaya III-271b; *map* III-144
 Malaya, Peoples of, I-291a; fishing, VI-158b; languages, IV-201a
 Malayalam language IV-200b
 Malay Archipelago (East Indies) III-143b; peoples, I-250a
 Malaysia (E. Indies) III-143b; peoples, I-250a
 Maldivé *Is.*, Indian Ocean, III-231a; *map* III-322
Maldon, The Battle of, Anglo-Saxon poem, XII-130b
 maleic resins VII-219b
 maleo, bird, II-56b
 Malevitch, Kasimir (b. 1878), Russian painter, XII-268b
 mallard, wild duck, II-125a
 Mallarmé, Étienne (1842-98), French poet, XII-165b, 335b
 mallet, tool, *illus.* VII-82
 Mallory, George Leigh (1886-1924), mountaineer, IX-333a
 mallow, flower, Index p. 65
 Malmaison, near Paris, France, VI-385b
 Malory, Sir Thomas (d. 1470), author of *Morte D'Arthur*, XII-29b; I-37b
 Malplaquet, battle of (1709), V-295a
 malt, in beer, VII-41a
Malta III-272b; *map* III-160; government, X-102a; in Second World War, X-292b
 Maltese I-293a; language, IV-403a
 Maltese cross, of cine-camera, VIII-73b
Malting VII-276a
 malvaceae, flower family, Index p. 65
 Mamba, snake, II-259a; crested, II-91b
Mammals II-259a; evolution of, II-137b
 mammary glands (breasts) XI-23b
 mammoth, prehistoric animal, III-351b
 man: anatomy, XI-4b; evolution, I-165a; prehistoric, I-375a; races of, I-390a
 mana, power inhabiting objects, primitive religions, I-28b, 336a
 managing director VII-71b

Manasseh, son of Joseph, Old Testament, Index p. 129a
 manatee, aquatic animal, II-369a
 Manchester, Lancs., III-273b
Manchester Guardian, newspaper, IV-305b
 Manchester rugby football club IX-417a
 Manchester Ship Canal IV-249b
 Manchester terrier IX-194b
 Manchester University X-346b
 Manchu (Chi'ing) dynasty, China, I-108b, 110a; III-275a; art, XII-73b; chart I-107
 Manchukuo (Manchuria), province, N.E. China, III-274b; map III-459
 Mandalay, Burma, III-275a; map III-229
 Mandarin, Chinese official and dialect, IV-95a
 mandarin orange VI-88b
 mandated territories X-61a
 mandolin, musical instrument, IX-313a
 mandrake, poisonous plant, *illus.* XII-129
 mandrill, baboon, II-28a
 Manet, Édouard (1832-83), French painter, V-289b; *illus.* XII-163
 Man Friday, character in *Robinson Crusoe*, V-131b
 manganese, mineral, VII-204b; extraction, VIII-283a
 mange, animal disease, VI-291a
 mangel fly VI-167b
 mangel wurzel, *see* mangold
 mangle XI-280a
 mango, tropical fruit, VI-463b
 mangold (mangel wurzel), root crop, VI-383a-384b, 53a; beet sickness, VI-125a
 mangonel, weapon, X-43b
 mangosteen, tropical fruit, VI-463b
 mangrove, tropical plant, III-301b
 mangrove coasts III-97b
 Mani (c. A.D. 216-c. 276), Persian religious reformer, I-494b
 Manicure and Pedicure XI-292b
 Manila, Luzon, Philippine Is., III-339a; map III-87
 manila hemp VI-153a; rope-making, VII-378a
 Manitoba, province, Canada, III-70b; map III-69
 Mannerism, style of painting, XII-218a
 manners: etiquette, XI-146a; table manners, XI-438a
 Manning, Henry (1808-92), cardinal, Roman Catholic Church, V-335a
 Manor XI-293b; land unit of feudal society, VI-258a; VII-180b
 manorial court X-246b
 Mansart, François (1598-1666), French architect, XII-161a; *illus.* XII, opp. p. 160; mansard roofs, XI-386b
 Mansart, Jules Hardouin (1646-1708), French architect, XII-467b
 Mansfield, Katherine (1888-1923), short-story writer, XII-418b
Mansfield Park, Jane Austen, V-25b
 manslaughter X-274b
 manta (devil-fish) II-385b
 Mantegna, Andrea (c. 1430-1506), Italian painter, V-290a; *illus.* XII-217

mantids, insects, II-329b
 mantis shrimp II-329a
 manual alphabet, deaf and dumb, IV-119a
 manufactures VII-242b, 185a
 Manure, Farmyard, VI-277a; loading and distributing, VI-120a
 Manures VI-278a, 32b, 8b; distribution, VI-120a; green manures, VI-279a, 274a, 58b
 manuscripts, earliest written books, IV-50b; illuminated, XII-199b; handwriting, IV-180a
 Manx cat IX-118a
 Manx people, III-239a; language, IV-167b
 Manx Tourist Trophy, motor-cycling, IX-328a
 Manzoni, Alessandro (1785-1873), Italian writer, XII-220b
 Maoris, of New Zealand, I-294b; art, XII-304b, 306b; evangelization, V-296b; language, IV-306a; tattooing, XI-450b
 Maple Tree VI-280a; wood, VII-224a
 Map Projections IV-254a; surveying, VIII-423b
 Map-reading IV-256a
 Maps, History of, IV-250b
 maps of the known world at various times, Index p. 50
maqama, Arabic literary form, XII-19b
 Maquis, French resistance forces of Second World War, *see* guerillas
 mara (Patagonian cavy), rodent, II-81a
 Marathi language IV-199b
 Marathon, battle of (490 B.C.), V-123b
 Marathon Race IX-314b
 Marble and Alabaster VII-277a; marble in building, VIII-270a, 271a; in sculpture, XII-440b
 marbled white butterfly II-56a
 Marbles IX-315a
 Marc, Franz (1880-1916), painter, XII-144b
 marcasite, mineral, III-125b
 Marconi, Guglielmo (1874-1937), inventor of wireless telegraphy, V-290b; IV-487a
 Marconi Company IV-69b
 Marco Polo (1254-1324), Venetian traveller, V-291a
 Marcus Aurelius (A.D. 121-180), Roman Emperor, V-292a; statue of, XII-381
Mardi Gras, Shrove Tuesday festival, IX-114b
 Marduk, Babylonian god, I-61b
 mare, female horse, VI-244b
 mare's tail (cirrus) clouds III-94a, b
 Margaret (c. 1045-93) Queen of Scotland, IV-167a; XI-267a
 Margaret, St., Index p. 136a
 Margarine VII-278b
 marguerite, garden flower, VI-87b
 Mari, Syria, wall-paintings of, XII-35a
 Mariana Is., Pacific Ocean, I-314a; map I-350; *see also* Pacific Islands
 Maria Theresa (1717-80), Queen of Austria-Hungary, V-293b
 Marie Antoinette (1755-93), Queen of France, X-168b; necklace, XI-268b
Marie Celeste, derelict ship, IV-121a

Marie de Guise (1515-60), regent of Scotland, V-298a
 Marie-Louise (1791-1847), French Empress, V-329b
 marigold (calendula) VI-24b; Index p. 71
 marimba, percussion instrument, IX-366a
 Marine Engineering VIII-266a
 marine navigation IV-293b
 marine surveying IV-92a
 Marines X-258a; uniform in 19th cent., *illus.* X-472
 marionettes, puppets, IX-392a
 Marius (157-86 B.C.), Roman general, I-410b
 Marivaux, Pierre (1688-1763), French dramatist, XII-164b
 Mark, St., evangelist, I-70b, 130a; Index p. 129a
Mark, St., Gospel of, I-422a
 Mark Antony (c. 82-30 B.C.), Roman general and administrator, V-294a
 Market VII-279a; street market, VII-417b
 market cross *illus.* XI-474
 Market-gardening VI-280b
 Market Research VII-282a, 7a
 Market-towns VI-282b
 marl, rock, III-89b
 Marlborough (John Churchill, Duke of (1650-1722), V-294b
 Marlborough School, Wilts., X-352a
 Marlborough House, London, X-380a; chapel, V-251a
 marlin, sword-fish, IX-63a
 Marlowe, Christopher (1564-93), V-296a; *Dr. Faustus*, XII-146a
 marmalade XI-264a
 marmoset, monkey, II-275a
 Marmot, rodent, II-260a
 Maronites, Christian sect, I-465a, 29a, 135a
 marquess X-316b
 Marquet, Albert, 20th cent. French painter, XII-266b
 marquetry, inlaid work, VII-243a
 Marrakesh, French Morocco, III-303a; map III-5
 marram grass II-376a; *illus.* II-375
 Marriage Ceremonies I-296a
 marriage guidance XI-162b
 Marriage, History of, XI-295a; status of women, XI-159b
 marriage, laws of, X-483a; Scottish Law, X-393b; divorce law, X-133b
Marriage à la Mode, Dryden, V-147b
Marriage of Figaro, Mozart, V-324b
 marrow, of bone, XI-30b
 marrow, vegetable, VI-205b; flowers, *illus.* VI-151
 Mars, Roman god, Index p. 140b; I-201b, 197b
 Mars, planet, III-340a-342b
 Marsala wine VII-472b
 Marsden, Samuel (1765-1838), English missionary, V-296b
 Marseilles, port, S. France, III-275b; map III-173; mistral, III-294b
 Marshall Aid X-260a
 Marshalling Yards, railway, IV-259a
 Marshall Is., Pacific Ocean, I-314a; map III-323; *see also* Pacific Islands

- Marshalsea prison X-340b
 marshbuck (situtunga), antelope, II-18a
 marsh gas III-180b
 marshland III-301a; fens, reclamation, VIII-159a
 marsh marigold VI-479b
 marsh plants II-461a
 marsh plume moth II-326a
 marsh rosemary, shrub, VI-324b
 Marston Moor, battle (1644), X-97b
 Marsupials (pouched mammals) II-261a; III-40b
 marten, mammal, II-464a, 462b
 Martha, sister of Mary, New Testament, Index p. 129a
 Martial (Marcus Valerius Martialis, c. A.D. 40-104), Roman poet, XII-135b
 martin, bird, II-415b
 Martin Chuzzlewit, Dickens, V-137b, 138a
 martyr, in Christian Church, I-427a-428b
 Martyrs' Memorial, Oxford, V-111b
 Marvell, Andrew (1621-78), English poet, XII-258a, 308a
 Marx, Karl (1818-83), political philosopher, V-296b; capitalist theories, X-70b; communist creed, X-110a
 Mary, the mother of Christ, I-272a; Index p. 129a; the Assumption, I-177a
 Mary, mother of James and Josies, New Testament, Index p. 129a
 Mary, sister of Martha, New Testament, Index p. 129a
 Mary, Queen of Scots (1542-87), V-298a; Babington plot, IV-106a
 Mary I (Mary Tudor, 1516-58), Queen of England, V-154b, 111a
 Mary II, Queen of England 1689-94, X-372b
 Mary Magdalene, follower of Jesus, Index p. 129a
 Marylebone Cricket Club IX-163b
 marzipan XI-430b
 Masaccio (c. 1401-28), Italian painter, V-300a; XII-153b, 215b
 Masai, peoples of E. Africa, I-299a
 Masaryk, Jan (1886-1948), Czechoslovak statesman, V-301b
 Masaryk, Thomas Garrigue (1850-1937), Czechoslovak nationalist leader, V-300b
 mascaret (tidal wave of river Seine, France) III-441a
 Maserene Is., Indian Ocean, III-230b; map III-322
 mash-tun, vessel, brewing, VII-41a
 Maskelyne, Sir John Nevil, 19th-cent. conjurer, IX-152a
 mason VII-414a; medieval, VII-64a
 mason bee II-37a
 Masonry VIII-269a
 Masons, Freemasons, X-166a
 Masque, form of dramatic entertainment, IX-315b
 Mass, of a body, III-276b; measurement of, VIII-272a
 Mass, celebration of Eucharist, Roman Catholic Church, I-417a, 424a; music of, XII-397a, 344b
 'Mass in B minor', J. S. Bach, V-27b
 Mass in D major, Beethoven, V-37a
 Massachusetts, state, U.S.A., map III-451
 massacre: of Jews, I-276b; of St. Bartholomew's Eve (1572), V-220b
 'Massacre of Scio', painting by Delacroix, V-132b
 Masséna, André (1756-1817), Napoleonic general, V-301b
 mass production VIII-334b; VII-366b; in clothing industry, VII-110a; effect on design, XII-210b; in motor industry, VII-303a; prefabrication, VIII-331a
 master, ship's, IV-407b
 Master of Arts, degree, X-479b; XII-24b
 Master Builder, Ibsen, V-237a
 master craftsman VII-143b
 Master of the Horse, official of Royal Household, X-378b
 Master of the Rolls, judge, X-219a
 mastic, resin, VII-219a
 mastiff, dog, IX-189b
 mastigophora (flagellata), single-celled animals, II-335a
 mastitis, animal disease, VI-19b
 mastoid, ear disease, XI-129a
 Matabele, African peoples of Rhodesia, I-442a
 matador, bullfighter, IX-104b
 matches VIII-86b
 mate, ship's, IV-408a
 maternity clinics XI-164a
 mathematical calculating machines VIII-51b
 Mathematical Notation IV-260a
 mathematical puzzles IX-395a
 mathematics: algebra, VIII-6a; arithmetic, VIII-12b; Babylonian mathematical system, I-60b; calculus, VIII-55b; counting, history of, IV-112b; counting instruments, IV-115a; geometry, VIII-186a; graphs, VIII-190a; logarithms, VIII-259b; trigonometry, VIII-462b
 Mather, Cotton (1663-1728), American Divine and botanist, VI-336b
 Mathurine, 16th-cent. French woman jester, IX-299a
 mating, animal, II-344b; language, II-12b; territory, II-15a; see also under various animals
 Matins, service of English Church, I-375a
 Matisse, Henri (1869-), French painter, XII-266b
 matriculation, university, X-478b
 matrimony, sacrament of Christian Church, I-418a; marriage ceremonies, I-296a
 matrix, seal, IV-395a
 mats XI-44a
 Matteotti Giacomo (d. 1924), Italian Socialist leader, V-325b
 Matter III-277b
 Matterhorn, mountain peak, Switzerland, III-10b, 428a; ascent, IX-332b
 Matthew, St., apostle, Index p. 129a
 Matthew, St., Gospel of, I-422a, 70b
 Matthias, St., apostle, Index p. 129a
 mattresses XI-22a
 matura diamond III-496b
 maturity, of animals, II-188a; Index p. 144
 Maudslay, Henry (1771-1831), British engineer, VIII-275b
 Mauer jaw (fossil remains of early man) I-183b
 Maundy gifts (traditional royal gifts to the poor) IX-473a
 Maupassant, Guy de (1850-93), French writer, XII-417b
 Mauretania, Roman province, I-326b
 Mauretania, liner, IV-437a
 Mauritius I., Indian Ocean, III-230b; map III-322
 Mauryan Empire, of India, I-240b
 mausoleum, tomb, XII-451a; at Halicarnassus, XII-475a
 mauveine, dye-stuff, VII-168b
 mavis, thrush, II-426a
 maxim gun X-490b
 Maximilian I (1459-1519), Holy Roman Emperor, V-85a
 Maximilian armour X-39a
 Maxwell, James Clark (1831-79), Scottish physicist, V-302b; discovery of wireless waves, IV-486a; experiments in colour photography, VII-340a
 Maya Civilization, of Central America, I-300a; languages, IV-27a
 Mayakovsky, Vladimir (1894-1930), Russian poet, XII-396a
 May bug (common cockchafer), beetle pest, VI-51b
 May Day IX-473b, 284b; dances, IX-231b
 Mayflower, Pilgrim Fathers' ship, patriot, IV-261b
 May-fly II-262b
 mayonnaise XI-391b
 Mayor and Corporation X-260b; Lord Mayor of London, X-86a
 maypole dances IX-231b
 May Week, Cambridge, IX-75a
 Mazarin, Giulio (1602-61), Cardinal and minister of Louis XIV, V-283a
 Mazdah, god, see Ahura Mazdah
 Mazzini, Giuseppe (1805-72), Italian patriot, V-303a
 M & B, drug, XI-126b
 M.C. (Military Cross) X-262a
 M.C.C. (Marylebone Cricket Club) IX-163b
 MCPA, chemical weed-killer, VI-481b
 mead, drink, XI-495a
 mealies, maize, VI-275a
 Meals XI-297a
 mean solar time III-67a
 measles XI-250b
 Measurement, History of, IV-262a; agricultural measurements, VI-9a
 Measurement, Units of, VIII-272a
 measuring instruments, electricity, VIII-123b
 measuring instruments, length, VIII-250a
 meat XI-299b; boiling of, XI-29a
 Meat Trade VII-283b
 Mecca, Arabia, III-15b; map III-17
 Mechanical Engineering VIII-274a
 mechanical excavator VIII-119a
 Mechanical Handling VIII-277b
 mechanical mixer VI-43a
 mechanical shovel VIII-345b

mechanical stoker VIII-34a
 mechanical track laying VIII-363a
 Mechanics VIII-280a
 Mechanics' Institutes X-5a
 Mechanized Farming VI-285b, 361b
 Mecklenburg, province, N. Germany, III-185a; *map* III-186
 Medals XII-251a
 Medals and Decorations X-261a
 Medea, character in Greek mythol., Index p. 140b
 Medes, peoples of ancient Persia, I-353b; Index p. 129a
 Medical Officer of Health X-349b
 Medical Research Council VI-219b
 Medical Supplies VII-285b; drugs, XI-124b
 Medici Family, Giovanni (1360-1429), Cosimo (1389-1464), Lorenzo (c. 1449-92), Catherine (1519-89), Marie (1573-1642), V-304a; tomb of Lorenzo, *illus.* XII-454; fresco, V-336.
 Medicine XI-302b
 medicine man, witch doctor, I-288a, 489b; *illus.* 451b
 Medieval Art, Early, XII-253a
 Medina, Arabia, III-16a; V-314a
 Meditations, Marcus Aurelius, V-292a
 Mediterranean Sea III-280b
 medium (person who claims to have contact with the supernatural world) I-454a; IX-244a
 Medlars and Quinces VI-287a
 Medusa, monster, Greek mythol., Index p. 140b
 Meegeren, Hans van, 20th-cent. Dutch painter and forger, XII-158b
 meerkat (suricate), mongoose, II-273a
 Meerschau, clay, III-282b; VII-275a
 Megaliths, prehistoric monuments, I-302b
 Megalokastron (Candia), Crete, III-116b
 megalosaurus, prehistoric animal, III-352b
 megaphone, sound magnifying instrument, III-409b
 megatherium, prehistoric animal, III-353a
 megger, electrical instrument, VIII-126b
 Megiddo, Canaanite city, Index p. 129a
 Meissen, Germany, porcelain factory, XII-355b
 Mekong, river, Indo-China, III-232b; *map* III-87
 melamine resins VII-219b
 Melanesian Is., Pacific Ocean, III-330a; *map* I-350
 Melanesians I-303b; art, XII-304b; languages, IV-306a; physical features, *illus.* I-391
 Melba, Dame Nellie (Helen Mitchell 1861-1931), Australian singer, V-305b; *illus.* IV-70
 Melbourne, William Lamb, Viscount (1778-1884), V-458b
 Melbourne, Australia, III-282b
 Meleager, prince, Greek mythol., Index p. 140b
 Melita (Malta) III-272b
 Melody and Rhythm XII-255b, 364a;

national styles and characteristics, XII-156b
 melon, desert, II-119b
 Melons VI-288a
 Melpomene, Greek muse, I-329a
 melting-point of metals VIII-285b, 7b
 Melville, Herman (1819-91), American novelist, XII-16a
 Memlinc, Hans (c. 1440-94), Flemish painter, XII-151a; *illus.* XII-350
 Memory XI-306a
 menageries IX-136a
 Menai Suspension Bridge IV-265a
 Menander (342-c. 291 B.C.), Greek dramatist, XII-90a, 187a
 Mencius, Chinese sage of 4th cent. B.C., I-113b
 Mendel, Gregor Johann (1822-84), Bohemian monk and botanist, V-306a; II-204b
 Mendeleyev, Dmitry Ivanovich (1834-1907), Russian chemist, III-279b
 Mendel's Laws of Heredity VI-336b
 Mendelssohn, Jakob Ludwig Felix (1809-47), German composer, V-306a
 mendicant friars, religious orders of, I-187a
 Mending XI-308a
 Menelaus, King, Greek legend, Index p. 141a
 menhir, prehistoric monument, I-303a
 meningitis, brain disease, XI-325a
 menopause XI-284b
 menstruation XI-284a
 mental deficiency X-210b; treatment of, X-428b
 Mental Diseases XI-309b
 Mental Hospital X-262b
 menthol (mint camphor) VI-302b
 Menu Terms XI-311b
 Merbecke, John (d. c. 1585), English composer, XII-398a
 Mercantile System VII-287a; chartered companies, VII-94b
 Mercator (1512-94), Flemish geographer, IV-252a, 255a, 93a; map of the world, Index p. 51
 mercenaries, soldiers, X-39b
 mercerizing, in cotton industry, VII-142a
 Mercers' Company VII-106b
 Merchant Adventurers VII-288b
 Merchant Banker VII-290a
 merchant guild VII-143a
 Merchant Law X-264a
 Merchant Navy IV-265b; cadets, VII-19a; East Indiamen, VII-172b; ship's company, IV-407b
 Merchant Shipping IV-265b; Navigation Acts, VII-305a
 Merchants of the Staple VII-291a; rivalry of Merchant Adventurers, VII-288b
 Merchant Taylors' Company VII-107a
 Mercury, metal, VII-292b; distribution in earth, *map* III-284; use in gold mining, VII-211a; poisoning, VIII-379a
 Mercury, planet, III-341b
 Mercury, Roman god, I-202a; Index p. 141a; *see also* Hermes

mercury column, pressure gauge, VIII-332b
 Mere, Somerset, site of Bronze Age village, I-32a
 merganser, duck, II-126a, 124a
 meridian, line of longitude on globe, III-30b; IV-254a; *diag.* III-27
 meringue XI-130a
 merino sheep III-419a; wool, VII-482a
 Merit, Order of, X-187b
 Meritorious Service Medal X-262a
 merlin, falcon, II-139b; IX-210a
 Mermaid, the, tavern, XI-76b
 Mermaids I-306a
 mermaid's purse (egg-case of dogfish) *illus.* II-384
 Mersey, river, Lancs./Cheshire, III-262b
 Mersey Tunnel IV-266b
 Merton College, Oxford, X-306a
 Meryon, Charles (1821-68), etcher, XII-141b
 Meseta plateau, Portugal/Spain, III-419, 349a
 Meshach, Biblical character, Index p. 129a
 Mesolithic Age I-377b, 376a
 meson, particle of atom, VIII-212a
 Mesopotamia (Iraq) III-234b; *map* III-17
 Mesopotamia, ancient civilizations of, I-20b; Assyrians, I-41a; XII-30a; Babylonians, I-57a; XII-35a; Sumerians, I-456b; XII-443a
 Mesozoic age II-348a; *table*, III-139
 Messengers IV-267a, 326b; pigeon post, IV-314b
 Messerschmitt, aircraft, X-50b
 Messiah (Consecrated One) I-279a, 70a
Messiah, The, Handel, V-207a
 Messina, straits of, Mediterranean sea, III-402b
 Mestizo (South American of mixed European and Indian blood) I-6b
 metabolism (process by which living material is built up and broken down) II-189a
 metacentre, buoyancy, VIII-49a
 metaldehyde, insecticide, VI-249a
 Metallurgy (metal extraction) VIII-282b; metallurgical coke, VIII-84b; powder metallurgy, VIII-169a
 Metal Ores III-283b; assaying, VII-20b; mining, VII-294a
 metal ores: aluminium, VII-15a; copper, VII-130a; gold, VII-210b; iron, VII-251b; magnesium, VII-275a; mercury, VII-292b; silver, VII-396b; tin, VII-435b; zinc, VII-493a
 Metals VIII-284b; 'ageing', VII-203b; casting, VIII-63a; cutting, VIII-163b; drawing, VIII-168b; expansion, VIII-155a; extraction, VIII-282b; fault-detection, VIII-469b; forging and pressing, VIII-166b; heat treatment, VIII-202a; mechanical hardening, VIII-204a; mining, VIII-300a; refining, VIII-142a; shaping, VIII-283b; strengthening, VIII-202a; stress and strain, VIII-145a; surface treatment for protection, VIII-422b; welding, VIII-483a
 metals, noble, VIII-97a

- metal work, sheet, VIII-386a
 metamorphic rocks III-378a
Metamorphoses, mythological poem by Ovid, V-342b
 Metamorphosis, of animals, II-263a
 metaphor, figure of speech, XII-147a
 Metaphysical Poetry XII-257b
 metaphysics, branch of philosophy, I-363a
Metaphysics, Aristotle, V-17b
 Metcalfe, John (1717-1810), road engineer, IV-369a
Meteor, aircraft, X-154a
 meteorites III-286a, 284b
 Meteorological Instruments VIII-288b
 Meteorological Office X-12b
 meteorological records IV-102a; 36b
 meteorology (study of weather) III-480a
 Meteors III-285b
 meter, electricity, VIII-126a
 methane (firedamp), gas, VII-113a; VIII-306a, 385b
 Methodist I-307b, 125a
 Methuselah, patriarch, Old Testament, Index p. 129a
 methylated spirits VII-236b
 metonymy, figure of speech, XII-148a
 metre, unit of measurement, VIII-272a; IV-264b
 metre, of poetry, XII-468a, 127a
 metric system, measurement, VIII-272a; IV-264a
 metrology, science of measurement systems, VIII-274a
 Metropolitan Boroughs, London, X-254a
 Metropolitan Police, London, X-321a; C.I.D., X-83a; Police Courts, X-256b; river police, X-375b
 Metropolitan Water Board VIII-292b
 Metsu, Gabriel (c. 1630-67), Dutch painter, XII-96a, 115a
 Metternich, Clement, Prince (1773-1859), Austrian statesman, V-307a
 Meung, Jean de, 14th-cent. French poet, XII-384a
 Meuse (Maas), river, Belgium/France, III-50a; map III-173
 Mexican Ancient Civilization I-308a; Mayas, I-300a
 Mexican orange, flowering shrub, VI-166a
 Mexicans I-312a
 Mexico III-287a; French invasion of 1864, X-274b; silver-mining, VII-397a
 Meyer, Julius Lothar (1830-95), German chemist, III-279b
 mezzo-soprano voice IX-428a; in opera, IX-350b
 mezzotint, printing method, XII-138a, b
 M.I. 5, Military Intelligence, X-429b
 Mica, mineral, VII-293b; III-290a, 391b
 Micah, Hebrew prophet, Index p. 129a; Book of, I-69a
 Michael, archangel, I-27a, 145b
 michaelmas daisy VI-114a
 Michelangelo (1475-1564), Italian painter and sculptor, V-308a; XII-441b, 455a; painting, *illus.* XII-155, 325; I-221; sculpture, *illus.* XII-411
 Michelet, Jules (1798-1874), French historian, XII-194a
 Michelson, Albert Abraham (1853-1931), American physicist, III-259a, 367b
 Michigan, state, U.S.A., III-453a; map III-451
 Michigan, lake, U.S.A., III-201b; map III-318
 Mickey Mouse films IX-217b
 microfarad, unit of measurement, electricity, VIII-274a
 micrometer, length-measuring instrument, VIII-250b
 Micronesian Is., Pacific Ocean, III-330a; map I-350
 Micronesians I-314a; languages, IV-306b
 Microphone VIII-294a; IV-426b
 microphotography VII-340b; X-429b
 Microscope VIII-295b; XI-305b; 'travelling' microscope, VIII-251a
 microsporan, parasitic plant, II-308b
 Midas, king, Greek mythol., Index p. 141a; I-205a
 Middle English IV-139b
 middleman, *see agent*
 Middlemarch, George Eliot, V-154b
 Middlesex, in county cricket, IX-158b-159b, 163b
 Middlesex Hospital, London, X-189b
 Middle Stone Age (Mesolithic) I-377b, 376a
 Middle Temple, London, X-237a
 Middle West, region, U.S.A., III-452b
 Midgard, home of men, Norse mythol., I-343a
 Midge, insect, II-265a; as plant pest, VI-167b
 Midlands, English, III-156a
 midshipman X-296b
Midsummer Night's Dream, A, Shakespeare, XII-415b
Midsummer Night's Dream, A, overture, Mendelssohn, V-306b
 Midway, Battle of (1942), X-264b
 mignonette, garden flower, VI-24b
 migraine XI-3b
 Migration, of animals, II-265b; of birds, II-46b, 266b
 Migration of Peoples I-315b
 Mikado, Japanese emperor, I-434a
Mikado, *The* (1885), Gilbert and Sullivan, V-432b
 Milan (Milano), N. Italy, III-288b; map III-160
 mildew, fungus disease of plants, VI-339a, 387b, 431b
 mileage counter mechanism VIII-403b
 Milhaud, Darius (1892-), French composer, XII-269b
 Military Bands IX-317a
 military bridges VIII-41b
 Military Cross (M.C.) X-262a; *illus.* X-261
 military law X-116a
 military orders, religious, I-281a
 Military Tattoos IX-318a
 militia, volunteer reserve, X-39b, 41a
 Milk XI-313a; breast-milk, XI-13a; condensed, VII-156b; dairy cows, VI-76a; dairy industry, VII-154a; dried, VII-156a; pasteurization, VII-330a; goat's milk, VI-204b
 milking VI-80a; by machine, VI-112b, 286a
 milkweed butterfly, *see monarch butterfly*
 Milky Way III-455a
 Mill, John Stuart (1806-73), writer on politics, economics, and philosophy, V-309a; *On Liberty*, IV-163a; V-310a; *The Subjection of Women*, X-494a
 Millais, Sir John Everett (1829-96), English painter, XII-360a-361a; *illus.* VII-478
 Mille Miglia, Italian motor-car race, IX-327b
 Millet, cereal, VI-288b
 Millet, Jean François (1814-75), French painter, XII-390a
 Millikan, Robert Andrews (1868-), American physicist, III-116a
 milling, flour, VII-192b
 Milling Machines, metal, VIII-296b
 millions fish (guppy) II-276b; IX-19b; *illus.* IX, opp. p. 32
 millipede (many-legged animal) II-288a; as plant pest, VI-326a
Mill on the Floss, George Eliot, V-153b, 154b
 Milner, Isaac (1750-1820), mathematician and divine, VII-6a
 Milton, John (1608-74), English poet, V-310a; *Comus*, V-310b; XII-426a; IX-316b; *Ode on the Morning of Christ's Nativity*, XII-308; V-310b; *Paradise Lost*, XII-329b, 134b; V-311b; pastoral poetry, XII-335a; sonnets, XII-429b
 Mime IX-318b
 mimicry, among insects, II-333b
 minaret, of mosque, XII-276b; *illus.* XII-278
 mincemeat XI-424b
 Mind and Body XI-314a
 mine, sea, explosive, X-58a; *see also* land-mine
 minelayer, ship, X-298b; *illus.* X-383
 mineral salts XI-336b, 186a; in animal food, VI-170a
 Minerals III-289b; mining, VIII-298b; Mohr's scale of hardness, III-290a; prospecting, VIII-341a
 mineral waters XI-73b; industry, VII-93b; spas, IX-436a
 miners' lamps VIII-379b
 Minerva, Roman goddess, Index p. 141a; *see also* Athena
 minestrone, soup, XI-418b
 mine-sweeper, ship, X-59a, 298b; *illus.* X-383
 mines, types of, VIII-299a
 Ming dynasty of China I-108b; *chart* I-107; art, XII-73b
 Miniature Railways IV-268a
 Miniatures, paintings, XII-259a
 Mining VII-294a; blasting, VIII-28a; open-cast mining, VIII-299a, 117a; pumping machinery, VIII-150b; royalties, VII-379b
 mining: asbestos, VII-19b; coal, VII-110b, 114b; gold, VII-210b; Neolithic flint, VII-92b; salt, VII-392b; tin, VII-132a
 Mining Engineering VIII-298b

Mining in Britain VII-297a; royalties, VII-379b
 Mining Machinery VIII-302a
 Ministers of the Crown X-265b
 minister without portfolio X-267b
 Ministry of Agriculture and Fisheries VI-289b, 376a; rodent officer, XI-229b
 Ministry of Civil Aviation IV-97b
 Ministry of Education X-268b
 Ministry of Food X-360b
 Ministry of Fuel and Power X-55b
 Ministry of Health X-349b
 Ministry of Housing and Local Government X-457a
 Ministry of Labour X-269a
 Ministry of Raw Materials X-55b
 Ministry of Supply X-488a
 Ministry of Town and Country Planning X-457a
 Ministry of Transport IV-369b
 Ministry of Works X-269b
 mink, mammal, II-464b; fur, VI-187a; XI-199a
 Minnesingers, poet-musicians of the middle ages, XII-425a
 Minnesota, state, U.S.A., III-453a; map III-451
 minnow, fish, II-74a; IX-15b
 Minoan Civilization I-317a; XII-229a; dress, XI-86b
 Minorca, I., Mediterranean Sea, III-45b
 Minor Counties Championship, cricket, IX-159a
 Minorities X-270a, 291a, 107a
 Minos, legendary king of Crete, Index p. 141a; XII-229a
 Minotaur, monster, Greek mythol., Index p. 141a; I-319b
 Minsk, Byelorussia, U.S.S.R., III-64b; map III-459
 Minstrels IX-320a; XII-292a
 Mint, coinage, X-271a
 mint, garden herb, VI-233b; family, Index p. 68
 minuet, dance, IX-50a; XII-98b
Minuet in G, Paderewski, V-345b
 minuet and trio, of sonata, XII-424b, 424a
 Miocene Age I-165b; table III-139
 Miracle I-319b
 Miracle Plays XII-260b; I-406a
 Mirage III-292a
 Miranda, Francisco de (1750-1816), South American liberator, V-312a
 Mir Jaffir, 18th-cent. Indian ruler, V-95a
 Mirrors XI-314b; reflection, III-258b
 mirror signalling IV-233a
 misdeemeanour, law, X-118a
 Misericord, carving, XII-262a
 Misericordia, nursing order, XI-333a
 missel-thrush II-426b
 Missionary I-321b
 Mississippi, state, U.S.A., map III-451
 Mississippi River, U.S.A., III-292b; map III-318
 Missouri, river, U.S.A., III-451b
 Missouri, state, U.S.A., III-453a; map III-451
 mist III-168a
 Mistletoe, semi-parasitic plant, II-268b
 Mistral, wind, III-294b

Mistress of the Robes, official of Royal Household, X-379a
 Mite and Tick Pests VI-290b
 Mites and Ticks II-269b
 Mithraism, religion, I-322a
 Mithridates (c. 120-65 B.C.), King of Pontus, V-368a
 M.L. (motor launch) X-298a
 Mnemosyne, Greek goddess, I-329a
 moa, flightless bird, II-303a
 Moabites, Semitic peoples of Canaan, I-217b
Moby Dick (1851), Herman Melville, XII-16a
 moccasin, water, viper, II-447a
 mocha coffee III-16a
 Mochica (Early Chimú), Peruvian pottery, I-358b
 Mocking-bird II-270a
 mock orange, flowering shrub, VI-165b
 Model Aircraft IX-321a
 Model Engineering VIII-306a; hydraulic models, VIII-216a
 Model Railways IX-322b; IV-268a
 Model Ships IX-323b
 model theatre IX-470a
 moderator, of nuclear fission, VIII-315b
 Modern Architecture XII-263a, 370a
 Modern Art XII-265a
 modern drama XII-110b; acting, IX-9a; theatre, IX-465a
 Modern Music XII-269a; harmony, XII-191a; orchestration, XII-316a; sonatas, XII-424b
Modern Painters, Ruskin, V-397b
 Modern Poetry XII-270b
 modes, musical, XII-408a; diag. XII-407
 modulation, of music, XII-189b
 Moffat, Robert (1795-1883), missionary and explorer, I-403b
 Mogul Empire, of India, art, XII-213a; illus. VII-444
 M.O.H. (Medical Officer of Health) X-350a
 mohair VII-220a
 Mohammed (c. A.D. 570-632), founder of Islamic religion, V-312b
 Mohammed Ali (c. 1769-1849), Egyptian leader, I-161a, 30a
 Mohammedan (Moslem, Muslim) I-259b
 Mohammedan empire, map Index p. 53; see also Islam
 Mohenjodaro, ancient city of India, I-238a
 Mohr's scale of hardness, minerals, III-290a
 molasses, syrup, VII-236a
 Moldavia, republic, U.S.S.R., III-294b; map III-459
 Mole II-270a; on farm, VI-489b; fur, VII-201a
 molecule (smallest particle of any substance) III-83a-84a; illus. III-37 fig. 3
 mole drain VI-119a
 Molière (Jean Baptiste Poquelin 1622-73), French dramatist, V-314b; XII-91a
Moll Flanders, Daniel Defoe, V-132a
 Molluscs (family of soft-bodied creatures) II-270b
 moloch, lizard, II-2b

Moluccas (Spice Islands), East Indies, III-145a; I-250a; map III-144
 'moment', of a force, VIII-282a
 momentum VIII-281a
 Monaco, European principality, III-174b; IX-117a; map III-173
 'Mona Lisa', portrait by Leonardo Da Vinci, V-272b
 monarch butterfly II-272b; migration, II-266b
 Monarchy X-272b; British, X-120a; coronation, X-113b
 monasteries I-38b, 324b; books, IV-51a; dissolution of, I-124b; hospitals, X-188b; hostels, IV-202b; libraries, IV-224b; schools, X-138b; sheep farming, VII-479a
 Monastic Architecture XII-273a
 Monet, Claude (1840-1926), French painter, XII-204b
 Money VII-298b, 182a; coinage, VII-120a; coins, VII-121a; primitive money, VII-354a; rates of exchange, VII-371a; Index p. 118
 Money Market VII-301a
 money order VII-334a
 money spider II-400b
 Mongolia III-294b; map III-21
 Mongolia, Inner, province, N. China, III-86b; I-323a
 Mongolian languages IV-470a
 Mongolian physical features I-392a; illus. I-391
 Mongols I-323a; empire, Index p. 54
 felt-making, VII-188b; Genghis Khan, V-186a; Kublai Khan, V-263a; Tamburlaine, V-438a
 MongOOSE, mammal, II-272b
 Monica, St., V-22b
 Monitor, lizard, II-273b
 monitorial method, education, X-141a, 446a
 Monk I-324b
 Monk, George, 1st Duke of Albemarle (1608-70), English soldier, V-397a
 Monk, Thomas (1763-1843), canal-boat builder, IV-37b
 monkey boat IV-37b
 monkey-nuts VI-217b
 Monkeys II-273b; performing, IX-368a; as pets, IX-369a; relation to man, I-165b
 monk-fish II-385b
 monkshood, flower, Index p. 64
 monocle XI-419a
 monocoque structure, aircraft, VIII-4b
 monocotyledon, class of plants, II-89a, 379a
 monoplane IV-156a
 Monopoly VII-302a, 332a; public utility companies, VII-368a
 monotheism (belief in one god) I-198a
 monotype machine, printing, VII-359a
 Monro, Alexander (1697-1767), Scottish anatomist, XI-305a
 Monroe, James (1758-1831), president of U.S.A., X-274a
 Monroe Doctrine X-274a
 Mons, Belgium, in First World War, X-159b
 Monserrat, I., West Indies, III-484b
 'Mons Meg', cannon, illus. X-43b
 Monsoon, seasonal wind, III-295b

- monsters I-161a; in mythology, I-335a; Loch Ness monster, II-373b
- Montagu, Lady Mary Wortley (1689-1762), V-368b
- Montaigne, Michel de (1533-92), French essayist, V-316a
- Montana, state, U.S.A., III-454a, 198a; *map* III-451
- Mont Blanc, E. France, III-161b; ascent of, IX-331b-332a
- Montcalm, Marquis de (1712-59), French general, III-358a
- Monte Carlo, Monaco, III-174b; IX-117a; *illus.* III-281
- Monte Cassino, Benedictine monastery, V-38b
- Montenegrins, Yugoslav peoples, I-492a
- Montenegro, region, Yugoslavia, III-494a
- Montesquieu, Charles Louis (1689-1755), French political thinker, XII-388b
- Montessori, Maria (1870-1952), Italian educationalist, V-316b
- Monteverdi, Claudio (1567-1643), Italian composer, XII-309b; opera, IX-351b, 349a
- Montevideo, Uruguay, S. America, III-296a; *map* III-415
- Montezuma (1466-1520), Aztec king, V-109b
- Montfort, Simon de (c. 1208-65), leader of the barons against Henry III, V-317a
- Montgolfier, Joseph (1740-1810) and Jacques (1745-99), French pioneer balloonists, IV-155a
- Monthly Magazine* V-136a
- Montreal, Quebec, Canada, III-297a; *map* III-318
- Montrose, James Graham, Marquis of (1612-50), V-317b
- Monument, the, London, XII-276a; *illus.* XII-275
- Monuments XII-274b; prehistoric, I-302b
- Moon III-297a; distance from earth, III-31a; eclipse of, III-146a; interplanetary travel, IV-210a; movement, III-29b; phases, III-297b
- moon daisy VI-87a
- moonfish (opah) II-353a
- Moonlight Sonata*, Beethoven, V-37a
- moonstone III-290a
- Moore, Henry (1898-), English sculptor, XII-268b, 442b
- Moore, Sir John (1761-1809), British soldier, V-319a
- moorhen II-340b
- Moorish Art XII-276b, 430b; Moorish gardens, VI-195b
- Moorland and Marsh III-300a
- moorland plants II-200b
- Moors, of Spain and North Africa, I-326b, 448b
- moose, deer, II-118b
- moraine, glacier deposit, III-191b, 194a
- moraine, rockery, VI-380a
- Morality Plays XII-278a
- Moravia, region, Czechoslovakia, III-119b
- Moravian Church I-328a
- mordant, dye fixative, VII-168a
- Mordecai, *see* Esther
- More, Hannah (1745-1833), religious writer, X-437a
- More, Sir Thomas (1478-1535), Lord Chancellor of England, V-320a, 228a
- morel, fungus, II-170a; XI-189a
- morelles (nine men's morris), board game, IX-72a
- Morgagni, Giovanni Battista (1682-1771), Italian anatomist, XI-7a
- Morley, Edward Williams (1838-1923), American physicist, III-259a
- Morley, Yorks., wool industry, VII-486a
- Mormons, Christian sect, I-328b
- morning glory, climbing plant, VI-92b; *illus.* VI-91; Index p. 66
- Morocco III-302a; *map* III-5; government, X-105b
- Morocco leather VII-425b
- Morpheus, Greek god, Index p. 141a
- morphine, drug, XI-125a
- Morris, William (1834-96), artist, poet, and socialist, V-322a; XII-264b; tapestry factory, VII-427a; Morris and Company, XI-196b; wallpaper, XI-480b
- Morris, William, Viscount Nuffield (1877-), British motor-car manufacturer, VII-303a
- morris dances IX-236b
- Morrison, Robert (1782-1834), British missionary, I-130a
- Morrison air-raid shelter X-89a
- Morse, Samuel (1791-1872), American inventor, IV-445b
- Morse Code IV-268b
- mortar VIII-38a
- mortar, gun, X-45b; *illus.* X-43; mortar bomb, X-58a
- Morte D'Arthur*, Sir Thomas Malory, XII-29b
- mortgage X-346b
- mortise and tenon, carpentry joint, VII-83b
- Morton, William Thomas Green (1819-68), American dentist, XI-4a
- Mosaic law X-234b
- mosaic plant diseases VI-341a, 373a, 46b
- Mosaics XII-279a, 121a
- Moscow, U.S.S.R., III-303b; *map* III-459; *illus.* I-415; the Kremlin, XII-230b; Moskva-Volga canal, IV-382b; Napoleon's retreat from, X-280b
- Moseley, Henry Gwyn-Jeffreys (1887-1915), English physicist, III-36a
- Moselle, river, France/Germany, III-185b
- Moselle wines VII-472a
- Moses, Hebrew patriarch, Index p. 129a
- Moslem (Muslim, Mohammedan) I-259b
- Moslem art, *see* Islamic art
- Moslem (Muslim) League X-205a; V-245b, 237b
- Mosque XII-281b; I-260a; Great Mosque of Cordova, XII-276b; Great Mosque of Mecca, III-16a; mosques of Persia, XII-339a
- Mosquito (gnat) II-275b
- Mosquito, aircraft, X-55b, 56b, 153b
- Mosquito-fish II-276b
- Mosses and Liverworts II-276b; classification, II-89b
- motet, music, XII-17a
- Mothering Sunday XI-157a
- Mothers' Day IX-286b
- moth proofing VII-492b
- Moths II-277b; moth pests, VI-62a; XI-229b; tropical moths, II-66a
- Mo Ti, Chinese sage, I-113b
- motmot, bird, II-35b
- Motion III-304b; mechanics, VIII-280a
- motley, jester's, IX-298b
- Motor Boats IX-324b
- motor-bus IV-72b
- Motor-car IV-269a; brakes, VIII-35b; clutch, VIII-82b; engine, IV-373b; VIII-229a; gears, VIII-182b; tires, VII-381a; registration letters, Index p. 119
- Motor-car, History of, IV-271a; industry, VII-302b
- Motor-car Racing IX-326b; Brooklands, IX-103a
- Motor-coach IV-274a
- Motor-cycle IV-275a
- Motor-cycle Racing IX-328a
- Motor Industry VII-302b
- motor launch, naval vessel, X-298a
- motors, electric, VIII-133a
- Motor-ship IV-275b
- Motor Transport IV-277a; engines, IV-373b; garages, IV-372a; roads, IV-369a; road traffic control, IV-372b
- Motor Transport Maintenance IV-279a
- motte, fortification, X-164b
- motto, heraldic, IV-185b
- moufflon, sheep, II-386b; VI-403a
- Moulds, fungi, II-279b; in cheese-making, XI-52a; penicillin, XI-126b
- moulds, metal, VIII-322a, 64a
- moult, change of coat, VI-357a; of birds, II-44b; of insects, II-263a
- mountain ash (rowan), wild rose, II-357a, 169b
- Mountain Building III-305b
- Mountaineering IX-329b
- Mountaineering, History of, IX-331a
- mountain kaka (kea), parrot, II-309b
- Mountain Passes IV-280a
- Mountain Railways IV-282b
- mountains, comparative heights, *chart*, Index p. 62
- Mountains of the Moon (Ruvenzori), E. Africa, III-48b, 449a; IX-333a; *map* III-5
- 'Mounties', Royal Canadian North-West Mounted Police, I-94a; X-329a
- Mouse II-280a; farm pest, VI-475a; household pest, XI-229a
- mouse deer (chevrotain) II-84b
- Moussorgsky, Modeste (1839-81), Russian composer, XII-312b
- moustaches XI-18a
- mouth-organ IX-401a
- Movement of Animals II-282a
- Movement of Plants II-283b
- moving staircases IV-230a
- mowing-machine, haymaking, VI-225b
- Mozambique (Portuguese East Africa) III-142b, 6a; *map* III-5; people, I-151a
- Mozart, Wolfgang Amadeus (1756-91),

- composer, V-323b; concertos, XII-94b; operas, XII-311a; V-324b; orchestra, IX-351b; symphonies, V-324b
- M.T.B. (motor torpedo-boat) X-298a
- Mu'allaqat*, Arabic poems, XII-19a
- Muckle Flugga lighthouse, Shetland Is., III-401b
- mucor, mould, II-279b
- mud eel (siren) II-359b
- mudejar*, style of Spanish art, XII-431a
- mud puppy, amphibian animal, II-359b
- mud-skipper (walking fish) II-180a
- muezzin*, crier, in Islam, I-385b
- muffle furnace VII-21b
- Muffs XI-316a
- Mukden, Manchukuo, China, III-275a; map III-459
- Mulatto (offspring of European and Negro), in Brazilian population, I-74b
- Mulberries VI-292a
- Mulberry harbour X-28a; VIII-107b
- mulberry trees VI-416a, 292a
- mulch, soil food, VI-163a
- mule VI-117b
- mule, spinning machine, VII-140b, 485a
- muller, grinding stone, VII-192b
- Mullet, fish, II-286a
- mulligatawny soup XI-418a
- multilateral school X-143a
- Multiple Shops VII-304a, 317b
- multiple-unit control, of electric railway, VIII-366b
- multiplication VIII-12b
- Mummers, actors, IX-334a
- mummy, embalmed body, ancient Egypt, I-156b; III-22b
- mumps XI-252a
- Munda, Indian hill-tribe, I-247a; languages, IV-200b
- Munich (München), S. Germany, III-307b; map III-186
- Murat, Marshal (1767-1815), leader of Napoleon's cavalry, V-329b
- Murder and Manslaughter X-274b; inquest, X-114b
- Murdock, William (1754-1839), Scottish inventor, VII-202a
- muriate of potash, artificial fertilizer, VI-36b
- muriatric (hydrochloric) acid VII-5a
- Murillo, Bartolomé Esteban (1617-82), Spanish painter, XII-432a; *illus.* XII, opp. p. 433
- Murmansky, N.W. Russia, III-385a, 18a; map III-459
- Murray river, S.E. Australia, III-39b; map III-41
- Murray's *Handbooks*, guide-books, IV-464b
- musa textilis* (manila), plant, VII-377a
- muscar, garden flower, VI-61a
- Muscle, animal, II-286a; human, XI-317a
- Muscovy Company, English, V-231b
- Muscovy duck VI-121b, 24a
- Muses, Greek goddesses of learning and the arts, I-329a
- Museum X-275b; British Museum, XII-28a
- Mushroom, culture of, VI-292b; fungus, II-172b; cookery of, XI-188b
- Music XII-283a; broadcast programmes, IX-100a; concerts, IX-146b; orchestra, IX-351b; *see also under different styles*, i.e. concerto; jazz
- Music, History of, XII-291a; medieval, XII-291b, 344b; modern, XII-269a; oriental, XII-317b; primitive, XII-364a
- Musical Box IX-335a
- Musical Comedy IX-335b
- Musical Form XII-284a
- Musical Instruments IX-336a, 351b; orchestration, XII-314b
- Musical Instruments, History of, IX-338b
- Musical Notation XII-286b
- Music and Drama Festivals IX-340b
- Music-hall IX-341b; VII-178b
- musk, scent, VII-337a
- muskallunge, pike, fish, II-322b
- musket, gun, X-228b
- musk ox II-80b
- musk rat (musquash) II-448b; fur, VI-187b
- Muslim (Mohammedan, Moslem) I-259b
- Muslim (Moslem) League X-205a; V-245b, 237b
- musquash (musk rat) II-448b; fur, VI-187b
- Mussel, shell-creature, II-287a; fishing, VI-412a
- Mussolini, Benito (1883-1945), leader of Italian Fascism, V-325a; X-453
- Mustard VI-293b; condiment, XI-74b
- mustard and cress VI-398a
- mustard beetle VI-51a
- mustard gas X-174a
- mustel organ IX-401b
- Mutiny X-277b; Mutiny of the Bounty, IV-54b
- mutton XI-301b
- mutton bird II-317a
- Mutual Broadcasting System (U.S.A.) IV-69a
- M.V.D., Soviet police, X-322b
- Mycenaean Civilization I-329a, 22b
- Mylne, Robert (1734-1811), Scottish engineer, VIII-76b
- Myriapoda (many-legged animals) II-288a
- Myron, 5th-cent. B.C. Greek sculptor, XII-183b
- mystery plays I-405b; medieval miracle plays, XII-260b; I-406a
- Mysticism I-330b
- Mythological Monsters I-335a
- Mythology I-332a; Babylonian, I-61a; Egyptian, I-154b; Greek, I-208b; Index p. 137; Hebrew, I-220b; Norse, I-342b; Roman, I-201b
- Naaman, Syrian general, Old Testament, Index p. 129b
- Naboth, Biblical character, Index p. 129b
- Nadir Khan (1880-1933), Afghan king, I-4a
- nagana, cattle disease, VI-466b; XI-461a
- Nagas, hill tribe of N.E. India/Burma, I-246a, 85b, 20a
- Naiads, water nymphs, Index p. 141a
- Nails and Claws II-289a
- nails, of human beings, XI-408a, manicure and pedicure, XI-292b
- naker, drum, IX-365a
- Names: persons, IV-285a; places, IV-319a
- Nanak (1496-1539), founder of Sikh religion of India, I-440a
- Nancy, E. France, III-174a; map III-173
- Nanda Devi, mountain peak of Himalayas, IX-333b
- Nanking, China, III-308a; map III-87
- Nansen, Fridtjof (1862-1930), Norwegian explorer, V-326a
- Nansen passport V-327a
- Nansen Relief Committee X-362b
- Nantes, Edict of (1598), V-222a; revocation of (1685), V-283b; VII-268b
- Naomi, mother of Ruth, Old Testament, Index p. 129b
- nap (Napoleon), card game, IX-113a
- Napier, John (1550-1617), scientist, IV-115b
- Naples (Napoli), S. Italy, III-308b; map III-160
- Napoleon I (Bonaparte, 1769-1821), French Emperor, V-327a, 449b; code of laws, X-236a; empire, map, Index p. 54; road building, IV-366b
- Napoleon III (Louis Napoleon, 1808-73) V-330a
- Napoleonic Wars X-279a; blockade, X-54b, 396b; conscription, X-112b; *War and Peace*, Tolstoy, V-448b
- nappe, rock formation, III-375b
- naras (desert melon) II-119b
- narcissus, garden flower, VI-59b-61a; family, Index p. 69
- Narcissus, youth, Greek mythol., Index p. 141a
- Narcotic drugs XI-124b
- 'narrow boat', canal boat, IV-37b
- narwhal, whale, II-467b
- Nasca pottery I-358b
- Naseby, battle (1645), X-97b
- Nash, John (1752-1835), English architect, V-330b; XI-455a
- Nash, Richard ('Beau' Nash, 1674-1761), master of ceremonies to Bath, V-331a
- Nasmyth, James (1808-90), British engineer, VIII-167a; XI-98b
- nasturtium, climbing plant, VI-92b
- Natal, province, S. Africa, III-412b 414a; I-443b-444b
- Nathan, Hebrew prophet, Index p. 129b
- Nathaniel, disciple, Index p. 129a
- National Agricultural Advisory Service VI-290a, 13b
- National Allotments Society Ltd. VI-17b
- National Assembly, French, X-167a
- National Assistance X-281a; Poor Law, X-332b
- National Association of Boys' Clubs, Girls' Clubs, IX-140b
- National Broadcasting Company (U.S.A.) IV-69a
- National Coal Board VII-117b
- National Council of Social Service X-85a
- National Cyclists' Union (N.C.U.) IX-168b

- National Debt X-282a
 National Dock Labour Board IV-322b
 National Docks and Inland Waterways Executive IV-83a
 national dress XI-148b
 National Farmers' Union VI-294a
 National Finance X-284a; Bank of England, VII-37a; currency control, X-124a; medieval finance, VII-290a; state loans, VII-271b
 National Fire Service X-156a
 National Forest Parks VI-177a
 National Gallery, London, XII-28b
 National Gallery of Scotland XII-29a
 National Health Insurance Act (1911) X-286b
 National Health Service X-286a; child guidance clinics, XI-56b; child welfare clinics, XI-164b; hospitals, X-190b; maternity clinics, XI-164a
 National Hunt Committee IX-290a
 National Insurance Act (1911) X-419a; V-280a; (1946) X-419b, 470a
 Nationality X-287b
 Nationalization X-288a
 National Maritime Museum, Greenwich, XII-29a; X-250b
 National Museum of Wales XII-29a
 National Parks IX-343a
 National Portrait Gallery, London, XII-28b
 National Registration X-483a
 National Savings X-289a
 National Service X-113a, 42a
 National Society, for voluntary schools, X-484a
 national songs XII-426a, 156a
 National Trust IX-344b
 National Union of Agricultural Workers VI-137a
 National Union of Teachers X-448a
 Nation and State X-289b; federation, X-150b
 native cats, of Australia, II-262a
 N.A.T.O. (North Atlantic Treaty Organization) X-213b, 217b
 natterjack toad II-432b
 naturalization X-287b
 Nature Worship I-336a, 239b
 Nature Writing XII-295a
 Nautical Almanac IV-295b; 289b
 Nautilus, U.S. atomic submarine, VIII-268b
 nautilus, paper (argonaut), octopus, II-297a
 Naval Architecture VIII-308a
 Naval Aviation X-291b
 Naval Bases X-292a
 Naval Guns X-293a, 398b
 naval history X-394b, 397b, 400b
 Naval Training X-296a; training ship, IV-460a; *see also* merchant navy
 Naval Vessels X-297a
 Navies, World, X-299a
 Navigation, Air, IV-289b; flying instruments, IV-158b; gyroscope, VIII-194a; navigation lights, IV-4a
 Navigation, History of, IV-287a, 142b
 Navigation, Marine, IV-294a; charts, IV-92a; compass, IV-109b; ship's log, IV-243a
 navigation, river, IV-362a
 Navigation Acts VII-305a
 Navy Board X-3b
 Nazareth, early home of Jesus, Index p. 129b
 Nazism X-454a; I-190b; anti-Semitism, I-277a; Hitler, V-224a; political police, X-323a; Second World War, X-402b
 Neanderthal man, fossil remains, I-182b
 near-sightedness XI-152b
 'neat' cattle VI-74a
 Nebraska, state, U.S.A., III-454a; map III-451
 Nebuchadnezzar (d. 562 B.C.), King of Babylon, V-239a, 243b; Index p. 129b
 Nebulae, cluster of stars, III-309a
 necklace XI-268b; *illus.* XI, opp. p. 224
 nectar, of plants, II-347a
 nectarine, fruit, VI-317b
 needle-gun X-490b
 needle-point lace VII-260a
 Needlework, Decorative, XI-319a
 'nef', table ornament, XI-342b
 Nefrotete, Queen of Egypt, 14th cent. B.C., V-6a
 negative, photographic, VIII-325a; VII-339a
 negligence, in law, X-91a, 275b
 Negrillos (Pygmies) I-387a
 Negrito, racial type, I-250a, 24a
 Negro Africans I-337a; Saharan, I-426b; slavery, VII-400a; X-412a
 Negro Americans I-13a
 Negro art XII-4a, 361b
 Negro music XII-228a, 156b
 Negro Spirituals XII-297a
 Nehemiah, Jewish patriot, 5th cent. B.C., Index p. 129b
 Nektonic animals II-12a
 Nellore, Madras, India, mica industry, VII-293b
 Nellore cattle VI-75a
 Nelson, H.M.S. British battleship, X-295b
 Nelson, Horatio, Viscount (1758-1805), V-331b; flag signals, IV-151b; *H.M.S. Victory*, IV-475b; Trafalgar, X-458a
 Nemesis, justice, Index p. 141a
 Nennius, author of *History of the Britons*, 8th/9th cent., I-37a
 Neo-Classical art XII-87a
 Neolithic (New Stone) Age I-378a; *chart* I-376; art, XII-358a; flint mining, VII-92b; pottery, I-381a; tools and weapons, I-383b
 neon, gas, III-37a
 Nepal, state, III-309b; map III-229
 nephrite, mineral, III-243a
 Neptune, Roman god, Index p. 141a; *see also* Poseidon
 Neptune, planet, III-343b; *figs.* III-340, 341
 Nereids, sea-nymphs, I-306b
 Nero (A.D. 37-68), Roman Emperor, V-334a
 nervous breakdown XI-310b
 Nervous System, animal, II-289; human, XI-323b
 nest-building II-45b
 Nestor, king, Greek legend, Index p. 141a
 Nestorian Church I-340a
 Nestorius, 5th-cent. Christian bishop, I-340a
 netball IX-55a
 Netherlands, The, *see* Holland; Dutch
 netmaking VI-394a
 nettles II-324b
 nettle-rash XI-3b
 neuralgia XI-325b
 neuritis XI-325b
 Neutrality X-300a
 neutrons (particles of atom) III-36b; detection of, VIII-355b
 Nevada, state, U.S.A., III-454b; map III-451
 Nevski, Alexander (1220-63), Russian prince, V-334b
 New Amsterdam III-312a
 New Atlantis, The, Francis Bacon, V-29b
 Newbery, John (1713-67), bookseller, IV-53a
 New Brunswick, province, E. Canada, III-69b; I-92b
 New Caledonia, Pacific I., III-331a; VII-311a; map III-323
 Newcastle, Northumberland, coal-mining, VII-114b
 New College, Oxford, X-306a
 Newcomen, Thomas (1663-1729), inventor of steam engine, VIII-151b
 New England, U.S.A., III-452b; I-129b
 New English Art Club XII-49b
 New English Dictionary IV-356b
 New Forest, Hampshire, VI-177a; ponies, IX-289a
 Newfoundland, Canada, III-310b; map III-318; government, X-63a
 Newfoundland Banks, fishing ground, VI-95b, 159a
 Newgate prison X-303a
 New Guinea, East Indies, III-143b, 330a; map I-250; administration, X-49b; ancestor worship, I-20a; art, XII-304b; languages, IV-310a; Melanesian people, I-303b
 New Harmony, Indiana, U.S.A., experimental community, V-344a
 New Jersey, state, U.S.A., III-452b; map III-451
 New Lanark, Scotland, experimental community, V-343a, b
 Newman, John Henry (1801-90), Cardinal, V-335a; preaching, XII-413b
 Newmarket, Suffolk, racecourse, IX-292a
 New Mexico, state, U.S.A., III-454a; map III-451
 New Model Army, Cromwell's, X-40a, 97b
 Newnham College, Cambridge, X-68a
 New Orleans, Louisiana, U.S.A., III-293b, 453a; map III-451
 News Agency IV-297a
 News Broadcasting IV-298a
 news-letters IV-302a
 News from Nowhere, William Morris, V-323a
 New South Wales, state, Australia, III-41b, 42a
 Newspaper IV-300a; advertising and propaganda, IV-337a; censorship in war, X-75b; freedom of speech, IV-163a; journalist, IV-213b

Newspaper Industry VII-305b; advertising, VII-8a,
 Newspaper Production VII-307b
 Newspapers, History of, IV-302a
 Newsprint VII-309b
New Statesman, periodical, V-475a
 New Stone Age (Neolithic) I-378a; *chart* I-376; art, XII-358a; flint mining, VII-92b; pottery, I-381a; tools and weapons, I-383b
 Newt, amphibian animal, II-289b, 7b
 New Testament I-70a, 116a; translations, XII-459b
 Newton, Sir Isaac (1642-1727), British mathematician and scientist, V-336a; gravitation, III-199b; Laws of Motion, VII-280a; IV-429a
 Newton's rings, rainbow colours, III-477a
 New Year, calendar rules, III-68b
 New Year festivals IX-472b; I-174b; of ancient Babylon, I-58a, 61b; of China, I-111b
 New York, U.S.A., III-311a; *map* III-451; skyscrapers, XII-422b
 New York State, U.S.A., III-452b; *map* III-451
 New York Water Supply VIII-311b
 New Zealand III-312a; colonizing work of Wakefield, V-465b; discovery, V-105a; Maoris, I-294b; meat trade, VII-284a; Test cricket, IX-165a; University, I-342b
 New Zealand, Government of, X-300b
 New Zealanders I-340b
 New Zealand spinach VI-425a
 Ney, Michel (1769-1815), French marshal, X-34b
 Niagara Falls, Canada/U.S.A., III-314b; rope-walking, IX-3a
 Nicaea, Council of (A.D. 325), I-116a
 Nicaragua, republic, Central America, III-78a; people, I-100a
 Nicene Creed V-22a; I-116a
 Nicholas, St., I-174b; Index p. 136a
 Nicholas II (1868-1918), Tsar of Russia, X-387a
 Nicholas Nickleby, Charles Dickens, V-136b, 137b
 Nicholson, Sir William (1872-1949), English painter, XII-353a
 nichrome, metal alloy, VIII-128a
 Nickel VII-310b; ore, *table* III-285
 nickel-silver, metal alloy, VIII-7a
 nicknames IV-286a
 Nicobar Is., Indian Ocean, III-231a; *map* III-322
 Nicodemus, ruler of Jews, Index p. 129b
nicotiana, tobacco, VII-436b
 nicotine, as insecticide, VI-248b
 Niebuhr, Barthold Georg (1766-1831), German historian, XII-194a
 niello, gold and silver work, VII-210a
 Niepce, Joseph Nicéphore (1765-1833), French physicist and chemist, VII-338b
 Nietzsche, Friedrich Wilhelm (1844-1900), German philosopher, V-338b
 Niger, river, Nigeria, W. Africa, III-315b; *map* III-5
 Nigeria, British colony and protectorate, W. Africa, III-315b; *map*

III-5; art, XII-4b-6b; people, I-337b, 339b
 Nightclothes XI-326a
 Night-flying Moths II-290a
 Nightingale II-291b
 Nightingale, Florence (1820-1910), V-339a
 Nightjar (goatsucker), bird, II-292a
 Night Poaching Act (1828) VI-348b
 night school X-4b
 nightshade, climbing plant, VI-92a; Index p. 66
 'Night Watch, The', Rembrandt, V-384a
 night watchmen X-323b
 Nihilists, revolutionaries of 19th-cent. Russia, X-406a, 47a
 Nijinsky, Vaslav (1890-1950), ballet dancer, V-341a
 Nijmegen, peace of (1678), V-284a
 Nijni-Novgorod (Gorki), Byelorussia, III-320b, *map* III-459; fur trade, VII-199b
 Nile, Battle of the (1798), V-332b
 Nile, river, Egypt/N.E. Africa, III-316b; *map* III-5; Aswan dam, VIII-15a; influence on Egyptian civilization, I-154b; irrigation and electric power schemes, VIII-321a; Owen Falls Scheme, VIII-320a
 Nile Valley peoples I-426b, 339a
 nilgai, antelope, II-18a
 Nilo-Hamitic people, of E. Africa, I-339a; language, IV-6a
 Nilotic language IV-6a
 nimbostratus, cloud formation, III-94b
 nimbus, cloud formation, III-94a
 Nimrod, 'a mighty hunter'; legendary ruler of Babylon, Index p. 129b
 nine men's morris (morelles), board game, IX-72a
 Nineveh, city of ancient Assyria, I-43a, b; III-234b; Index p. 129b
 'Ninth Symphony', Beethoven, V-37a
 Niobe, Greek mythol., Index p. 141a
Nirvana, in Buddhist religion, I-84a
 Nisyyros, I., Mediterranean Sea, III-132a
 nitrates, plant foods, II-292b; fertilizers, VI-35b
 nitre, salt, III-130b
 nitric acid VII-6a; use in assaying, VII-22a
 nitrobenzene, chemical, XI-354b
 nitrocellulose, in explosives, VIII-157a; in plastics industry, VII-243a
 nitro-chalk, fertilizer, VI-35b
 nitrogen, gas, III-34a; ammonia production, VII-16b
 nitrogen fertilizers VI-35b; manure, VI-277a; 278b
 nitrogen-fixing bacteria VI-422a
 Nitrogen Supply in Plants II-292a
 nitroglycerine, explosive, VIII-157a
 nits, lice eggs, II-255b
 N.K.V.D., Soviet police, X-322b
 Noah, Hebrew patriarch, Index p. 129b
 Nobel, Alfred Bernhard (1833-96), Swedish chemist, V-341b
 noble, coin, VII-124a; *illus.* VII-123
 noble metals VIII-97a
 noctule bat II-31b
 noddy, sea-bird, II-191b
 nodules, of roots, II-292b

nomads: of Central Asia, I-445a; Arabia, I-66a; Mongolia, I-324a; Persia, I-356b
 nomination boroughs, in parliamentary system before 1832, X-145b
 Nonconformist Churches: Baptist, I-64a; Congregationalist, I-129a; Methodist, I-307b; Presbyterian, I-91b
 Nonconformists I-129b; persecution, X-319b; Act of Toleration, X-373a
 nonsense poetry XII-93a
 noodles, food, XI-349b
 No plays, Japanese drama, XII-227a, b, 318b
 Nordenskiöld, Nils Adolf Erik, Baron (1832-1901), Swedish explorer, IV-144b
 Nordic, racial type, I-392a
 Nore, mutiny of the (1797), X-278a
 Norfolk, co., III-157a; county cricket, IX-159b
 normalizing, of metals, VIII-202b
 Norman architecture XII-48a, 80a; arch, XII-20a; vaulting, XII-463b; *see also* Romanesque
 Norman conquest of England, Battle of Hastings, X-182b; I-77b; V-485a; Domesday book, X-134b; law and government, X-231b
 Normandie, liner, IV-134a, 437b
 Normandy, province, N. France, III-175a; landings of 1944, X-28a; Norse settlements, I-345b
 Normans I-345b
 Norse languages IV-394b
 Norsemen (Northmen, Vikings) I-137a, 345b; ships, IV-476b
 Norse Myths I-342b, 197a, 215b
 Norse sagas XII-398b
 North Africa: Algeria, III-9a; Egypt, III-149b; Libya, III-256b; Morocco, III-302a; Tunisia, III-446a; *map* III-5
 North America III-317b; colonization, X-104a-105a; *see also* United States of America
 Northampton, treaty of (1328), V-60a
 Northamptonshire, boot and shoe industry, VII-274a; county cricket, IX-159b
 North Atlantic Treaty Organization (N.A.T.O.) X-213b, 217b
 Northcliffe, Alfred Harmsworth, Viscount (1865-1922), British journalist and newspaper proprietor, VII-306b, 8a
 North-East Passage, through Arctic, discovery, V-12a; search for, V-232a
 Northern Ireland I-257a; III-236a
 Northern Ireland, Government of, X-301a; police force, X-321a
 Northern Lights (Aurora Borealis) III-38b
 North Pole III-345b; exploration, III-348b
 North Sea III-321a; *map* III-322
 North Sea Canal, Holland, IV-80b
 Northumberland, co., III-155b
 Northumbrian art, of 7th and 8th centuries, XII-46b
 North West Company, fur trading, VII-234a
 North-West Passage, through Arctic

- discovery, V-11b; search for, V-128b, 232a
- North-west Territories, Canada, III-71a; I-94b; *map* III-69; government, X-69a
- Norway III-319a; *map* III-160; polar territories, III-346b, 420a
- Norwegian language IV-394b
- Norwegians I-345b
- Norwich, market-place, *illus.* VII, opp. p. 384; school of painting, 18th cent., XII-237a
- Nose Structure XI-327a
- Nostrodamus (1503-66), astrologer, I-45b
- notation, mathematical, IV-260a
- notation, musical, XII-286b
- notation, wheel, of locomotives, IV-239a
- Notre Dame cathedral, Paris, *illus.* XII-176; III-335
- Nottinghamshire: county cricket, IX-158b, 159a; hosiery industry, VII-227b; lace industry, VII-263a; wool industry, VII-487a
- Nottingham University X-346b
- Notus, south wind, Index p. 141a
- noughts and crosses, game, IX-358a
- novae, stars, III-421b
- Nova Scotia, *province*, E. Canada, III-69b
- Novel XII-298a; English, XII-132b; French, XII-165a; Russian, XII-395b
- Noverre, Jean Jacques (1727-1810), dancing-master, IX-175b, 47b
- Novgorod, N.W. Russia, III-320a; *map* III-459
- Nuclear Energy VIII-313a
- Nuclear Power VIII-315b
- nucleon, particle of atom, III-36b
- nucleus, central part of atom, III-36a-37a
- Nuer, African peoples, I-347a
- Nuffield, William Richard Morris, Viscount (1877-), British motor-car manufacturer, VII-303a
- numbers IV-112b, 115a
- Numbers*, book of the Bible, I-421a
- nun I-324b
- nun moth (black arches) II-443b
- 'Nuremberg kitchen' XI-106b
- Nuremberg trials, after Second World War, X-217a
- nurse: children's, XI-332a; hospital, XI-332b; X-191b
- 'nurse' crops VI-264b
- nursery, for plant propagation, VI-181a; tree nursery, VI-33a, 1b
- Nursery Equipment XI-328a
- Nursery, History of, XI-329b; day nurseries, X-128a
- Nursery Rhymes XII-301b; lullabies, XI-290a
- Nursery Schools X-301b
- Nursing XI-332b
- Nuthatch, bird, II-293a
- nutmegs, spice crop, VI-423b; *illus.* VI-424
- nutria (coypu), rodent, II-100b; fur, VI-187b
- Nutrition of Animals II-293b; farm animals, VI-147a
- Nutrition, of humans, XI-335a; deficiency diseases, XI-96b; dietetics XI-108a
- Nutrition of Plants II-294b
- Nuts VI-295a; II-167a
- Nyasaland, British protectorate, E. Africa, III-143a, 4b; administration, X-373b; peoples, I-151b
- Nyasa, Lake, III-4b; discovery, V-279a
- Nylon VII-311b
- nymph, stage of growth in certain insects, II-222a
- nymphaeaceae, flower family, Index p. 64
- Nymphs, Greek mythology, Index p. 141a
- 'Nymphs and Shepherds', song by Purcell, V-375a
- oak, tree, II-474a; VI-456b; timber, VII-224a; woodcarving, XII-477b
- oak-apple (oak-gall) II-173a
- oakland Bay Bridge, San Francisco, IV-173a
- oak-roller (oak tortrix), moth, II-239b
- oakum, fibre, VI-154a
- oak-fish II-352b
- oasis III-130b; Tafilet, Morocco, I-425a
- Oates, Captain L. E. G. (1880-1912), British Polar explorer, V-406a
- Oates, Titus (c. 1649-1705), fabricator of Popish Plot, X-30a
- Oaths, Commissioner for, X-109b
- oatmeal XI-48a
- Oats VI-297a; cereal food, XI-48a
- Obadiah, Hebrew prophet, Index p. 129b
- obelisk, monument, XII-275a
- objective lens, optics, VIII-295b, 435b
- oboe, wood-wind instrument, IX-487a; in military band, IX-317b; in orchestra, IX-351b-352b
- Observer Corps, Royal, X-385a
- obsidian, rock, III-378a
- occlusion, caused by cyclone, III-479b
- occultation, of stars, planets, &c., III-146a
- Occupational Therapy XI-338a
- ocean currents III-323a
- Oceania races, of S.E. Asia, I-393a
- Oceanic Art (Pacific Is.) XII-304a
- Oceanic Languages IV-306a
- Ocean Racing IX-345b
- Oceans III-321a; *table*, Index p. 62; ocean surveying (hydrography), VIII-221b
- ocean sun-fish II-327a
- Oceanus, *river*, Greek mythol., Index p. 141a
- ocelot, fur-bearing animal, VI-190b
- O'Connell, Daniel (1775-1847), Irish leader, V-342a
- O'Connor, Feargus Edward (1794-1855), Irish chartist, X-77b
- octane number, of petrol, VIII-232a, 173b
- octave, in music, XII-407b, 364a
- Octavian, Roman Emperor, *see* Augustus Caesar
- Octopus II-296a
- Octopus, Cuttlefish, and Squid Fishing VI-299a
- Ode XII-307a
- Odell, N. E., 20th cent. mountaineer, IX-333b
- Odin (Woden), chief god, Norse mythol., I-197a, 343a, 335b
- Odysseus (Ulysses), hero of Greek legend, XII-196a; Index p. 141b
- Odyssey*, The, Homer, XII-194b, 195b; V-228b
- Oedipus, Greek mythol., Index p. 141b
- Oenone, nymph, Index p. 141b
- Oersted, Hans Christian (1777-1851), Danish physicist, VIII-123b
- Offa (757-96), King of Mercia, VII-123b; Offa's Dyke, I-151a
- Offal XI-338b
- Offenbach, Jakob (1819-80), German composer, XII-311b
- Office Equipment VII-313a; calculating machines, VIII-51b
- offset, printing process, VII-365b
- Ogden, C. K., specialist in Basic English, IV-40a
- Ogham script, Gaelic, IV-25a; *illus.* IV-211a
- O.G.P.U., Soviet police, X-322b
- O'Higgins, Bernardo (1776-1842), Chilean leader, I-104b
- Ohio, *river*, U.S.A., III-293b; *map* III-318; Ohio Bridge, IV-64b
- Ohio, *state*, U.S.A., III-452b; *map* III-451
- Ohm, Georg Simon (1787-1854), German physicist, VIII-128a; Ohm's Law, electricity, VIII-129b; ohm, unit of measurement, VIII-273b
- Oil-bearing Plants VI-300a
- oil-bird (guacharo) II-292a
- oilcake, animal food, VI-148b
- oil-cloth, *see* linoleum
- oil fuels VIII-173a-b
- Oil, Mineral, VII-315b
- Oil, Natural, III-324b
- oil painting XII-325b
- oil palm VI-313a
- Oil Refining VII-317a
- oils, edible, XI-165a; as condiments, XI-74b
- oil-shale, rock, VII-385b; VIII-173b
- oilskin VII-466a
- Oils, Vegetable, VII-320a
- oil tanker VIII-310a
- Oil Wells VII-318a
- Okapi, mammal, II-297a
- Oklahoma, *state*, U.S.A., III-454a; *map* III-451
- Old Age Pensions (retirement benefit) X-318a, 419a
- Old Bailey, law court, X-303a
- 'Old Cocks' motor race IV-66b
- Old Curiosity Shop*, Dickens, V-136b
- Old English language IV-138a
- Oldham, Lancs., III-274a; VII-142b; *illus.* XI-457
- old man's beard, plant, II-379b
- Old Sarum, Wilts., X-145b
- Old Spanish Trail, U.S.A., IV-28a
- Old Stone Age (Paleolithic age) I-376b; art, XII-356b; tools and weapons, I-383a
- Old Testament I-68b, 421a; Index p. 123a; Hebrew language, IV-183a; translation of, XII-459a
- Old Vic, repertory theatre, IX-403a
- oleaceae, tree and shrub family, Index p. 67

- oleograph, print, XII-245b
oleo oil VII-278b
olfactory nerve XI-327b; animal, II-383b
Oligarchy X-303b
Oligocene age, *table* III-139
Oliver, legendary Frankish knight, XII-63a
Oliver, Isaac (c. 1566-1617), miniature painter, XII-259b
Oliver Twist, Dickens, V-136b
Olives VI-303a
Olives, Mount of, near Jerusalem, Index p. 130a
olivine, mineral, III-290b
olm, amphibian animal, II-359b
Ol' Man River, Mississippi, U.S.A., III-294a; *map* III-318
Olympia, sanctuary, ancient Greece, XII-309a; statue of Zeus, XII-475a
Olympic Games IX-347a, 32b
Olympus, Mount, Greece, III-204b; in Greek mythol., I-197a, 194a; Index p. 141b
Omairiyid mosque, Damascus, III-120b
Oman, *state*, Arabia, III-16b
Omar Khayyám, 11th cent. Persian poet, V-259a
omelettes XI-129a
omnibus IV-72b; horsedrawn, IV-195b
O'Neill, Eugene Gladstone (1888-1953), American dramatist, XII-458a
Onion Crops VI-303b; onion family, Index p. 69
onion fly VI-167b
onomatopoeia, figure of speech, XII-149a
Ontario, Lake, Canada/U.S.A., III-201b; *map* III-318
Ontario, *province*, Canada, III-69b
onyx, precious stone, III-6a; *illus.* XI, opp. p. 224
Oozes, found on ocean bed, III-326a
opah (moonfish) II-353a
Opal, precious stone, III-327a; *illus.* III, opp. p. 288
open-cast mining VII-294b; *illus.* VII-296a
Open Fields and Enclosures VI-305b
open-hearth furnace, steel-making, VIII-412a; *illus.* VIII-160
Opera IX-349a; *opera bouffe* XII-310a; IX-335b
Opera, History of, XII-309a; overture, XII-321b
operating theatre XI-8b
operation, surgical, history of, XI-425b; modern, XI-428b
opium poppy, narcotic, XI-125a; Index p. 64
Opossum, mammal, II-297b; fur, VII-201a; hunting, VI-190a
opposition, parliamentary, X-329a
Ops, Roman god, Index, p. 141b
optic nerve XI-151a
optics VIII-251b
opuntia, cactus, II-67b
oracle I-143b, 386a
Oran, Algeria, III-10a
orange beetle, insect pest, VI-465b
Orange Free State, South Africa, III-413b, 6a; history, X-423b
Orangemen, Irish secret society, X-407a
orangery VI-215a; XI-200a
oranges VI-88a; II-168b; Seville for marmalade, XI-265a
orange-tip butterfly II-471b
orang-utan, ape, II-23a
Oratorio XII-312b
oratory XII-374b
Orauns, Indian hill-tribe, I-247a
Orcaades, H.M.S., building of, VIII-388-91; *illus.* VIII opp. p. 48
orchards VI-178a
Orchestra IX-351b; XII-293b
Orchestration XII-314b
orchidaceae, plant family, Index p. 69
Orchids II-298b; cultivated, VI-309a
orchis, plant, II-300b; *illus.* II-299
ordeal, trial by, X-465a
Order of Merit X-187b
Orders, Ministerial, X-304b
Orders of Architecture XII-316a
orders of chivalry X-186b
ordination, of priests, I-417b
Ordnance Survey IV-252b; VI-290a
Ordovician Age, *table* III-139
Oregon, *state*, U.S.A., III-454b; *map* III-451
Oregon Trail, U.S.A., IV-28b
ores, metal, III-283b; smelting, VIII-283a
Orestes, Greek mythol., Index p. 141b
Organ IX-352b; electric organ, IX-337a
organic acids VII-3b
organic chemistry VII-100a, 102a
organistrum, early type of organ, IX-296a
organum, in plainsong, XII-190a
Orgburo, political committee, U.S.S.R., X-386a
Oriental art, *see* Chinese art; Indian art; Japanese art; influence in Europe, XII-76b
Oriental Costume XI-339b; embroidery, XI-135b
Oriental Music XII-317b
orifice flow-measurement, of liquids, VIII-215b
Origin of Species, Darwin, V-125b, 235a
Orinoco, river, South America, III-462b; I-484b; *map* III-415
Oriole, bird, II-301a
Orion, giant, Greek mythol., Index p. 141b; constellation, III-109b, 309b
Oriya, Indian language, IV-199b
Orkney Islands, N. Scotland, III-327b; *map* III-396
ormolu (gilt bronze) XII-52b
Ornament XII-319b; medieval, *illus.* XII-79
Ornamental Trees VI-310a
ornaments, personal, XI-266a
Ornaments, Household, XI-342b
Orozco, José Clemente (1883-1949), Mexican painter, XII-12a
orphanage X-77b
Orpheus, Greek mythol., Index p. 141b
orthochromatic photographic emulsion VII-340a; VIII-326b
orthodontics, dentistry, XI-98b
Orthodox Eastern Church I-348b, 117a; art, XII-52b, 198a; music, XII-397a
Orthopaedics XI-344a
ortolan, bird, II-146b
Osborne, Dorothy (1627-95), letters of, XII-242a
oscillation (vibration) VIII-473b
oscillation cycle, of electric current, VIII-204b
oscillator, thermionic valve, VIII-206a
oscilloscope, instrument for studying electrical vibrations, VIII-66b, 67b
osier willow VI-166a
Osiris, god, Egyptian mythol., I-159a, 156b
Oslo, Norway, III-328a; *map* III-160
Osmanly Turks I-478b
osmium, metal, VII-345b
osmosis, absorption of water by plants, II-356a
Osprey, bird, II-301b; plumes of, VI-145b
Ossian, legendary Celtic poet, XII-389b
ossification (bone formation) XI-30a
osteo-arthritis XI-32a
osteomyelitis XI-345a
Osteopathy XI-345a
Ostia, Roman flats at, XI-171b
ostracism, Athenian outlawry, X-305b
Ostrich II-301b; hunting, VI-146a
Ostrogoths (East Goths), Germanic peoples, I-202a
Ostyak tribes, of Siberia, U.S.S.R., I-438b
otitis, ear disease, XI-129a
Otos, giant, Greek mythol., I-194a
Ottawa, Ontario, Canada, III-328b; *map* III-69
Otter II-303a; fur, VII-201a; use to farmers, VI-489b
otterhound IX-190b
otter-hunting IX-354b
Otto, Nikolaus August (1832-91), German inventor, VIII-153b
Otto I (The Great, 912-73), Holy Roman Emperor, I-230b; XII-255a
Ottoman Empire, of Turkey, I-478b; V-431b; Index p. 53
Otway, Thomas (1652-85), English dramatist, XII-374a
Oudenarde, Battle of (1708), V-295a
ounce, unit of measurement, IV-263a
ounce, leopard, II-244b; IX-295a
outcaste (pariah), of Hindu society, I-96b; V-180b
Outlaw X-305a
outrigger canoe IV-85a
ouzel, water bird, II-120a; ouzel cock (blackbird), II-427a
ovary: human, XI-380b; of flower, II-159a
Oven Bird (hornero) II-304b
ovens XI-82a, 16b; bread, VII-25b; heat regulators, VIII-16a
overdraft, bank, VII-28b
Overend, Gurney & Co., bank, VII-30b
overhead charges, of factories, VII-135b
Overseas Trade VII-322b; bulk purchase, VII-69b; chartered companies, VII-94b; effect of hard currency, VII-222b; mercantile system, VII-287a
overtone (harmonic), in musical sound, IX-353b
Overture, music, XII-321

Ovid (Publius Ovidius Naso, 43 B.C.–A.D. 17), Roman poet, V–342b
 ovule, of flower, II–159a
 ovum, egg, of female animal, XI–379b; II–344b
Owen, Robert (1771–1858), philanthropist and social reformer, V–343a; Co-operative movement, VII–127b, 129b
Owen Falls Scheme (Uganda) VIII–320a
 owl moth II–290a
Owls II–305a; on farms, VI–490a
 ownership laws X–344a
 ox-bow lakes III–372b, 293b
 oxen VI–74a; beasts of burden, IV–43a; wild ox tribe, II–79b
 ox-eye daisy VI–87a
Oxford and Cambridge Boat Race IX–355b
Oxford Dictionary IV–356b
Oxford Famine Relief Committee VI–129b
Oxford Movement, in Church of England, V–335a; I–125b
Oxfordshire, cricket, IX–159b
Oxford University X–305b; Bodleian Library, IV–46b; undergraduate life, X–480b
Oxidation: in industrial processes, VII–324b; in blood, II–286b
 oxides, chemical combinations, III–283b
Oxus (Amu Dar'ya), river, Uzbekiskaya, U.S.S.R., III–460a
 oxy-acetylene welding VIII–484b
 oxygen III–34a, 83a–84b; used by blood, II–286b; XI–26b; in combustion, VIII–85b; discovery of, V–372a; in high-altitude flight, IV–189a; ozone, III–329b
Oyster II–306a; as food, XI–405b
 oyster-catcher, bird, II–453a
Oyster Fishing VI–311b
 'oyster' mine, explosive, X–59a
Ozone, form of oxygen, III–329b
 paca, rodent, II–81a
Pachomius, St., 4th cent. A.D., I–324b
Pacific Islands III–330a; map I–350
Pacific Islanders I–350a; art, XII–304a; currency, VII–356b; fishing, VI–158b; languages, IV–306a; physical features, I–393a; *illus.* I–391
Pacific Ocean III–321a, b, 324a; map III–323
Pacifism X–308a
 pack-animals IV–41b; pack-horse, IV–195a
 packet ships IV–434b
 pack-horse bridges IV–61b
 pack rolling, in tinplate industry, VIII–459a
 paddle-fish II–414b
 paddle steamer IV–433b, 404b
 paddy, rice, VI–377b
Paderewski, Ignace Jan (1860–1941), Polish pianist and composer, V–345a
Pageant IX–357a
Pagoda XII–323a
Paikto-Shan, mt., Manchuria, China, III–275a
Paine, Thomas (1737–1809), political writer, V–345b; I–394a

paint-brush (cirrus), cloud type, III–94a, b
 painted lady butterfly II–444b, 266a
 painting, history of, *see* art
 painting, schools of, XII–409b
Painting and Enamelling XI–346a
Painting Methods, fine arts, XII–323b
Paintings, Care of, XII–327b
Paints and Varnishes VII–325a; colour, III–103b
Paisley, Renfrewshire, cotton industry, VII–142b
Pakistan III–332a; map III–229; jute industry, VII–257b, 258a; creation of sovereign state, V–245a; X–205a; *see also* India
Pakistan, Government of, X–309a
Palace XI–346b
 Palaearctic region, of animal and plant distribution, II–11b; map II–12
Palaeolithic (Old Stone) age I–376b; art, XII–356b; tools and weapons, I–383a
 palaeontology (the study of fossils) III–171a, 183a
 Palaeozoic age, *table* III–139
 palanquin, conveyance, IV–236a
 palate, of mouth, XI–100b
 Palatine Hill, Rome, XI–346b, 347b
Palestine III–332a; map III–17; at the time of Christ, I–271a; Hebrew civilization, I–218a; modern Jewish settlements, I–277b; as a place of pilgrimage, I–366b; *see also* Israel
 Palestine, peoples, *see* Arabs; Jews; Syrians
 Palestrina (1525–94), Italian composer, XII–397b, 17a, 292a
 Palghat gap, S. India, III–228a
 Pali language IV–199b
 palindrome, word-puzzle, IX–393b
 Palladian architecture V–346a; in England, XII–34a; Palladian windows, XI–491a
Palladio, Andrea (1518–80), Italian architect, V–346a
Pallas Athene (Athena), Greek goddess, I–201a, 209b; III–33b; Index p. 138a
 pallet, of clock, VIII–81a
 Pall-Mall, ball game, street in London, IX–165a; Gazette, IV–305b
 Palma, I., Canary Is., III–71b
 Palma, Majorca, III–46a
 palmarosa, tropical grass, VI–302b
 palmate leaf II–241a
 Palmer, Samuel (1805–81), British etcher, XII–141a
Palmerston, Henry John Temple, Viscount (1784–1865), British statesman, V–346a
 palmistry, fortune-telling, IX–241b, 242b
 palm oil VII–321b
 Palm Sunday, in Christian Year, I–123a
Palm Trees VI–313a
 palm weevil, beetle pest, VI–483b
 Palmyra palm, *illus.* VI–314
 palolo worms VI–158b
 Pamir Mts., C. Asia, III–431a; map III–21
 pampas, grass, II–183a; grasslands of South America, III–198a, 416a

Pan, Greek god, I–201a; Index p. 141b
Panama, republic, Central America, III–333a; map III–78; peoples, I–100a, b
Panama Canal IV–307a
 panama hats III–147b
 panchromatic films and plates IX–372a, b; photographic effect, *illus.* VIII–326b
 pancreas, of human body, XI–138b, 102a; *illus.* XI–101
Panda, mammal, II–307a
 Pandora, Greek mythol., Index p. 141b
 panel beating, sheet-metal work, VIII–386b
 panelling VII–476a
Pangolin, mammal, II–307b
 Pankhurst, Emmeline (1858–1928), suffragette, X–494b; XI–161a
 'panning', in mining, VII–21a
 pan-pipes (syrinx) IX–339a
 pansy, plant, VI–54a; family, Index p. 68
Pantagruel, Rabelais, V–377b
 Pantalone (Pantaloone), character in early Italian comedy, IX–272b
Pantheism (belief that everything is God) I–350b, 198b
 Pantheon, Rome, XII–379b
 panther (leopard) II–243b
 pantomime IX–272b; clowns, IX–138b
 Papacy, *see* Pope
 Papal States, C. Italy, I–408a
 papaveraceae, plant family, Index p. 64
 papaya tree VI–464b
 Paper IV–308b
 paper fabrics VII–430b
 Paper Games IX–358a
 Paper-making VII–326b; newsprint, VII–309b
 paper sizes IV–54a
 papier mâché, paper pulp, IX–393a
 papilionaceae, tree, shrub and herb family, Index p. 68
 pappus, down, of certain seeds, II–379b
 paprika, spice, VI–423a
 Papua, New Guinea, I–49b; administration, X–49a; art, XII–304a, b; peoples, I–393a; *see also* Pacific Islands
Papuan Languages IV–310a
 papyrus IV–309a, 50b
Parable XII–329a
 parabola, curve, VIII–189a
 paraboloid, figure, VIII–189b
Parachute IV–310a; displays, IX–11a; *illus.* X–309
 Paradise I–217a
 paradise-fish II–233a
Paradise Lost (1667), Milton, XII–329b, 134b
 paraffin VII–316b; VIII–173b
Paraguay, republic, South America, III–333b; map III–415
Paraguayans I–351a
 Paraguay river, South America, III–333b; map III–415
 parakeet, parrot, IX–107a, b
 parallax, in astronomical measurements, III–32a; in stereoscope, VIII–416a

- parallelepiped, figure, VIII-188b
 parallel lines VIII-186b
 parallelogram, four-sided figure, VIII-187b
 parallelogram of forces VIII-282a
 paralysis XI-325b
 Parana river, S. America, III-416a; *map* III-415
 paranoia, mental disease, XI-310b
 Para rubber tree VI-390a
 Parasites: on animals, VI-314b; on humans, XI-230b
 parasitic diseases, of plants, VI-339a
 Parasitic Plants II-308a; of tropical jungles, II-436a, b
 Parasitic Worms VI-315b
 parasol XI-464b
 parathion, insecticide, VI-249b
 parathyroid glands XI-138b, 139b
 Paratroops X-309b
 parbuckling, method of loading timber, VI-446a
 parchment IV-309a, 51a
 pardon, in law, X-120a, 122a
 Paré, Ambroise (1510-90), French surgeon, XI-426b
 pargetting, of walls, XI-482a
 pariah (outcaste), of Hindu society, I-96b; V-180b
 Parian marble VII-277b
 Paricutin Volcano, Mexico, III-334a
 Paris, France, III-334b; *map* III-173; Arc de Triomphe, *illus.* XII-276; Bibliothèque Nationale, IV-44a; Eiffel Tower, XII-126b; Louvre, XII-246b; Notre Dame cathedral, *illus.* XII-176; siege (1871), X-411a; III-335a; university, X-476a; air view, *illus.* XI-454.
 Paris, Greek mythol., I-209b; Index p. 141b
 Paris Exhibition (1878) VII-814a; (1937) VII-184b
 Paris green, insecticide, VI-248a
 Paris, Matthew (c. 1200-c. 1259), English-born Latin chronicler, IV-251b
 Paris, Peace of (1783), X-26b
 Parish X-310b; poor relief, X-333b
 parish council X-242b; origin, X-311a
 parish priest, in Church of England, I-128a
 Park, Mungo (1771-1806), pioneer of African exploration, V-347b
 Parkes, Sir Alexander (1813-90), British inventor, VII-342b, 339a
 parks, amusement, IX-209a
 parks, national, IX-343a
 Parks and Gardens IX-358b; VI-34a
 Parliament, British, X-312b; Act of Parliament, X-1a; Hansard, X-182a; Houses of, X-196a; XII-180b
 Parliamentary Committees X-314b
 parliamentary under-secretary X-267b
Parliament of Fowles, The, Chaucer, V-88a
 Parmentier, Antoine, XI-312b, 362b
 Parnassus, Mount, Greek mythol., Index p. 141b
 Parnell, Charles Stewart (1846-91), Irish patriot, V-348b
 parochial church council X-312a
 Parody XII-330a
 parotid gland XI-100b
 parotitis XI-252a
 parquet flooring XI-174b
 Parr, Catherine (1512-48), 6th wife of Henry VIII, V-220a
 parr, young salmon, II-360b
 Parrots II-309a; IX-108a
 Parry, Sir Hubert (1848-1918), English composer, XII-398b
 Parsee, religion, I-352a; III-56b
 parsley, garden herb, VI-234a, 233b; in cooking, XI-221a
 Parsnip VI-317a, 53a; roots, II-355b
 parson, in Church of England, I-128a
 parson bird (tui) II-210b
 Parsons, Sir Charles (1854-1931), Irish engineer, VIII-152b
 Parthenon, temple, Athens, I-470b; XII-36b; *illus.* XII, opp. p. 17; Elgin marbles, XII-128a; stone used, VII-277b
 Parthians, peoples of ancient Persia, I-354a, b
 particles, in composition of atom, III-35b, 36b; behaviour, III-356b; high-voltage particle accelerators, VIII-209a
 particle theory of radiation III-356a
 Partisan Army, Yugoslavia, X-178b
 Partnership VII-329b, 71a
 Partridge, bird, II-310b; shooting, IX-249b; season, VII-353b; cooking, XI-363b
 part songs XII-428b
 Party Games IX-360a
 party government, *see* political parties
 Pascal, Blaise (1623-62), French religious thinker and scientist, V-348b
 Pashto (Pushtu) language IV-312a
 passenger aircraft IV-14b
 passenger trains IV-343a
 passion flower, climbing plant, VI-92a; *illus.* VI-91
 Passion Music XII-331b
 Passover, Feast of the, I-280b, 423a
 Passport X-315a
 Pasta, Italian dishes XI-349b
 Pastel, drawing and painting method, XII-332b
 Pasteur, Louis (1822-95), French chemist, V-350a
 Pasteurization of Milk VII-330a; inspection, X-161b
Paston Letters, the, XII-242a
 pastor, rose-coloured, bird, II-408a
 Pastorals, style of literature, XII-334a, 295a
 'Pastoral' (Sixth) Symphony, Beethoven, V-37a
 Pastry XI-350a
 Patagonia, Argentina, South America, III-18b, 19b; *map* III-415
 patching XI-308a
 patchouli, oil-yielding plant, VI-302b
 patchwork quilt, *illus.* XI-19b
pâté de foie gras XI-339a
 patent leather VII-425b
 Patents, inventors', VII-331b
 Pater, Walter (1839-94), British writer, XII-245a
 Paterson, William (1658-1719), Scottish financier, VII-34b
 Pathans, hill tribe of N.W. India, I-245a
 pathetic fallacy, figure of speech, XII-147b
 'Pathetic Sonata', Beethoven, V-37a
 pathfinder force, R.A.F., X-13b
 Patience, card games, IX-362a
 patina, of copper, VIII-97b
 Patmore, Coventry (1823-96), English poet, XII-360b
 Patmos I., Mediterranean Sea, III-132a; exile of St. John, Index p. 130a
 patriarch, bishop, Orthodox Eastern Church, I-348b
 patrician class, ancient Rome, I-409b, 410a
 Patrick, St. (c. A.D. 389-461), patron saint of Ireland, V-351b; Index p. 136a
 Patroclus, Greek mythol., XII-195a
 patronage, of art, in Renaissance Italy, V-304a
 patronage, in Church of England, I-128a
 patron saint I-427b
 pattens, shoes, XI-35a
 Patten-makers' Company VII-107b
 pattern, *see* ornament; design
 Pattern Making, engineering, VIII-322a
 Paul, St. (c. A.D. 16-c. 64), V-352a; epistles, I-70b
 pauper X-333a
 pavan, dance, IX-50a
 Pavey, Salathiel, boy actor of Elizabethan period, IX-6b
 Pavia, battle of (1525), V-85b
 Pavlov, Ivan Petrovich (1849-1936), Russian physiologist, V-353b
 Pavlova, Anna (1885-1931), Russian dancer, V-354a
 pawl, of ratchet, VIII-368a
 Pawnbrokers VII-332b
 paw paw, tropical fruit, VI-465a
 Paxton, Sir Joseph (1801-65), gardener and architect, XII-97a; VI-215a
 pay-as-you-earn (P.A.Y.E.), income tax, X-204b
 payload, of aircraft, IV-12a
 Paymaster-General, Treasury official, X-286a
 Payment VII-333a; credit, VII-147a; invoices, VII-250b
 peace-pipe IV-492b
 Peach-blossom Moth II-311a
 peach borer, caterpillar, II-90a
 Peaches and Nectarines VI-317b
 Peacock II-311b
 Peacock, Thomas Love (1785-1866), English novelist, XII-133a
 peacock butterfly II-445a
 peacock moth II-136b
 peanuts VI-217b; XI-48b
 Pearl Fishing VI-318b
 Pearl Harbour, Hawaiian Is., Japanese attack on, X-264b
 Pearl Oyster II-312a
 pearls II-312a; XI-267a, 268b; *illus.* XI, opp. p. 224
 Pearly Nautilus, sea-animal, II-312b
 pear midge, fly pest, VI-167b
 Pears VI-320a
 pear scab, fungus disease, VI-321a
 Peary, Robert Edwin (1856-1920), American explorer, V-354b
 Peas VI-321a; flowers, II-159a, 347a; nitrogen supply, II-292b; pods, fruit,

- II-167b; dried, XI-48b; pea family, Index p. 68
 peasant costume, European, XI-148b; *illus.* XI, opp. p. 368
 peasant farming VI-135b, 97a; co-operation, VI-99a; tropical, VI-461b
 Peasants' Revolt (1381) V-453b
 pease-pudding XI-48b
 peat VI-322b; peat bogs, III-380b; soil, *illus.* VI-419; as fuel, VIII-172a
 Peat-loving Plants VI-322b; II-200b
 peat-moss II-277a
 peccary, wild pig, II-421b
 Peckham health centre X-183b
 pectate, fermenting agent, II-142a
 pectin, substance extracted from citrus fruits, VI-88a; XI-264a
 pedestrian road crossings IV-372b
 pedicure XI-292b
 Pedlars and Hawkers VII-334b
 Pedro II, Emperor of Brazil (1831-89), I-74b
 Peel, Sir Robert (1788-1850), British statesman, V-355a; 'Bedchamber plot', V-458b; establishment of Metropolitan Police Force, X-325a
 Peep of Day Boys, Irish secret society, X-407a
 Peerage X-316a; creation of peers, X-188a
Peer Gynt, Ibsen, V-236b, 201b
 peewit (lapwing), bird, II-453a; on farms, VI-490a
 Pegasus, horse, Greek mythol., Index p. 141b
 peggotty, board game, IX-73a
 Peisistratus (d. 527 B.C.), Tyrant of Athens, V-422a
 Pekinese dog IX-195a
 Peking (Peiping), N.E. China, III-336; *map* III-87; Temple of Heaven, *illus.* I-114
 Peking, Forbidden City, XII-335b
 Peking man (fossil remains of primitive man) I-182b
 pelagic fishes II-149a
 Pelagius (4th-5th century), British monk, V-24a
 Pelasgians, earliest invaders of Greece, I-204a
 Pelée, Mont, *mt.*, Martinique, W. Indies, III-485a
 Pelican, bird, II-313a
 pellagra, deficiency disease, XI-476a
 Peloponnesian War (431-404 B.C.) V-358a, 445b
 Peloponnesus, *region*, Greece, III-204b
 Pelota, ball game, IX-363b
 pelts, skins, VI-185a, 188a
 pelvis, bone, XI-30b
 pen IV-495b
 penal reform X-355a
 penal servitude X-355a, 339b
 Penance, Sacrament of Christian Church, I-417b
 Penang, I., Malaya, I-291a; III-272b; *map* III-144
 Penates, Roman household gods, I-201b; Index p. 140b
 pencil IV-496a; manufacture, VII-214a
 pendant, flag, IV-149a
 pendants XI-268b; *illus.* XI, opp. p. 224
 pendulum VIII-80b; clock, VIII-455b
 Penelope, Greek mythol., XII-196a
 Index p. 141b
Penelope, H.M.S., X-123a
 Penguins II-313b; III-347a
 penicillin II-279b; drug, XI-126b
 Peninsular War (1809-13) V-319b, 477a
 Penn, William (1644-1718), founder of Pennsylvania, U.S.A., V-355b
 Pennine Range, N. England, III-155b
 pennon, flag, IV-148b
 Pennsylvania, state, U.S.A., III-452b, 326a; Quaker community, I-388b; X-339a; *map* III-451
 penny-farthing bicycle IV-45a
 Penny Post IV-328a, 326a
 Pensions X-317a; civil service, X-96a
 penstock, pipeline, VIII-219b; *illus.* VIII-220
 pentameter line, poetry, XII-127a
Pentateuch, part of Bible, I-421a
 pentathlon, Greek athletic contest, IX-347b
 penteconter, classical ship, IV-99b
 Pentecost, feast of, I-123a
 pentlandite, metal ore, III-285b
 pentode valves VIII-446b, 448a
 Pentonville Prison X-339b
 penumbra, caused by eclipse, III-146a
 'People's Charter' (1838) X-77a
 pepper VI-423a; XI-74b
 peppermint VI-302b
 pepper and salt moth II-255a
 pepsin, fermenting agent, II-141b; XI-101a
 Pepys, Samuel (1633-1703), English diarist and naval administrator, V-356b; XII-103b-104b; during Fire of London, X-159a; shorthand, IV-106a
Perahera, Buddhist festival of Ceylon, I-102b
 perambulator XI-16a
 Perch, fish, II-315a; IX-16b, 17a; climbing perch, II-233a; *illus.* II-234
 Percheron, horse, VI-240b
 perchlorethylene, solvent, VII-167a
 Percussion Instruments IX-364a
 Percy's *Reliques*, anthology, XII-18a; V-406b
 peregrine falcon, bird, II-139a; IX-210b, 211a
 Perennial Plants VI-325a
 perennial ryegrass VI-210b
 Performing Animals IX-366b
 Perfumery VII-336a, 320b
 Perfumes XI-352a
 Pergamum (parchment) IV-51a
 Pergolesi, Giovanni Battista (1710-1736), Italian composer, XII-310a
 Pericles (c. 500-429 B.C.), Athenian statesman, V-357b, 445b
 peridot, mineral, III-290b
 Periodicals XII-336a; IV-247b
 Periodic Law, of chemical elements, III-279b; *table*, III-278.
 periosteum, bone tissue, XI-30b
 periscope, of submarine, X-436b
 periwig XI-488a
 periwinkle, sea snail, II-396b; VI-412b
 Perkin, Sir William Henry (1838-1907), British chemist, VII-168b
 'permanent set', of strained materials, VIII-417b
 permanent waving, hairdressing, XI-209a
 permanent way, railway track, *see* railway construction
 permeability, of magnetic materials, VIII-264a
 Persian age, *chart* III-139
 perpendicular style in architecture XII-177b, 81a
 Perrault, Claude (1613-88), French architect, XII-247a
 perry, drink, VII-105a; perry pear-trees, VI-320a
 Persecution X-319a; of early Christian Church, V-334b; I-116a; XII-118a; of Jews, I-276b; V-224b
 Persephone (Proserpine), Greek goddess, I-200b; Index p. 142a
 Persepolis, city of ancient Persia, I-355b; XII-337b; XI-347a
 Perseus, hero of Greek mythol., I-207b; Index p. 142a
 Persia (Iran) III-336b, 20b; *map* III-17; oil wells, VII-318b; religion, I-356b
 Persian and Allied Languages IV-312a
 Persian Ancient Civilization I-353b; *chart* I-22; art, XII-337b; Zoroastrian religion, I-494a
 Persian Art XII-337b
 Persian carpets VII-85a
 Persian Gulf III-16b
 Persian lamb skins VII-200b
 Persian Literature XII-340b
 Persians I-356a; physical features, I-392a
 personal assets, book-keeping, VII-51a
 Personal Hygiene, History of, XI-354b
persona non grata, of diplomatic service, X-163b
 personification, figure of speech, XII-147b
 personnel manager, in industry, VII-72a, 187a
 Perspective XII-341a; in engineering drawing, VIII-147a-150b
 Perth, S.W. Australia, III-337b; *map* III-41
 Peru, republic, South America, III-337b; oil-fields, III-326a
 Peru, Ancient, I-357b
 Peru current, S. Pacific Ocean, III-324a
 Perugino (c. 1450-1523), Italian painter, V-382b; XII-462b
 Peruvians I-359b
 Peruzzi (1481-1537), Sienese painter, XII-421b
 Pestalozzi, Johann Heinrich (1746-1827), Swiss educationalist, V-174b
 Pests and Diseases, of farms and gardens, VI-325b, 289b
 Peter, St., V-358b; Index p. 130a; writings, I-70b
 Peter the Great (1672-1725), Tsar of Russia, V-359b
 Peter the Hermit (died 1115), French monk, V-361b
 Peterhouse College, Cambridge, X-67b
 Petition of Right (1628) X-181a
petits fours, biscuits, XI-25b
 Petrarch (Francesco Petrarca, 1304-74), Italian poet, V-361b; XII-428b, 429a; book page, *illus.* V, opp. p. 400
 Petrels, sea-birds, II-315b; XI-363b

Petrograd (Leningrad), U.S.S.R., III-255a; *map* III-459
 petrol VIII-173a; VII-316b
 petrol engine VIII-229a; history, IV-272b
 petroleum III-324b; VII-315b; fuels from, VIII-173a
 petrology (study of rocks) III-183a
Petrouchka, ballet by Stravinsky, V-341a; IX-48b
 Pets IX-369a; performing animals, IX-366b
 petty sessions, of magistrates' court, X-256a
 petunia, garden plant, VI-25b
 Pewter VII-337b, 133a
 Phaedra, Greek mythol., Index p.142a
 Phaestus, city, ancient Crete, I-317b-319b
 Phaeton, Greek mythol., I-460a; Index p. 142a
 phaeton, carriage, *illus.* IV-87
 phalanger, pouched mammal, II-261a; *illus.* II-298
 phalanx, line of battle, X-227b
 Phaniel, archangel, I-25a
 Pharaohs, rulers of ancient Egypt, I-384b, 157b; Akhnaten, V-5a; Rameses, V-381b
 Pharaoh's mouse (Egyptian mongoose) II-273a
 Pharisees, Jewish sect, I-271b; Index p. 130a
 Pharmaceutical Society of Great Britain VII-285b
 pharmacology XI-302b; VII-285b; drugs, XI-127a
 Pharos lighthouse, Alexandria, IV-322b; 230a
 Pharsalus, battle of (48 B.C.), V-368a
 pharynx, throat, XI-100b
 phases of the moon, III-297b; of vibrations, VIII-474a
 Pheasant, bird, II-317b; shooting, IX-249b; seasons, VII-353b; cooking, XI-363b
 Pheidippides (5th cent. B.C.), Greek messenger, IX-314b
 phenol, by-product of tar, VII-342a, 311b
 phenolic resins VII-341b, 347a
 Phi Beta Kappa, American student society, IX-475b
 Phidias (b. c. 500 B.C.), Greek sculptor, XII-184b, 475a, 128b
 Philae, temple of, Egypt, VIII-15b; *illus.* V-373
 philately (stamp collecting) IX-443b
 Philemon, recipient of St. Paul's epistle, Index p. 130a
 Philip, St., apostle, Index p. 130a
 Philip the Deacon, in early Christian Church, Index p. 130a
 Philip, son of Herod the Great, Index p. 130a
 Philip II, King of Macedon (c. 382-336 B.C.), V-9a, 132b
 Philip II of Spain (1527-98) V-362a; XI-348b
 Philippi, Macedonia, in early Christian Church, Index p. 130a
Philippics, Demosthenes, V-133a; XII-374b

Philippine Islands, Pacific Ocean, III-339a
 Philippine trench, Pacific Ocean, III-321b; *map* III-323; Index p. 62
 Philistines, of ancient Palestine, I-361a; V-127b; Index p. 130a
 Phillip, Arthur (1738-1814), first governor of New South Wales, X-460a
 Phillips, Peregrine, 19th-cent. manufacturer, VII-4b
 Philo, 1st cent. A.D., Greek philosopher, XII-188b
 Philoctetes, Greek legend, Index p. 142a
 philology (the science of language) IV-219a, 221a
 philosophers' stone VII-98a
 Philosophy I-361a; Chinese, I-112b; Greek, I-206a; VII-97b
 phloem, vessels, of plant, II-408b
 phlogiston theory, of combustion, VII-98b
 Phoebe, god, in classical mythol., *see* Apollo
 Phoenician Civilization I-363a; VII-443a; language, IV-403a
 Phoenix, legendary bird, I-365a; Chinese phoenix (love pheasant), I-366a
 Phoenix Park murders (1882) V-348b
 phon, unit of sound measurement, VIII-1b
 phoneme, speech sound, IV-479b, 221b
 phonetics (the science of spoken sounds) IV-478b; alphabet, IV-429b; in Egyptian hieroglyphic writing, IV-187a; as basis of shorthand systems, IV-402b
 phonograms, consonant symbols, in pictorial writing, IV-187a
 phonograph, early type of gramophone, IX-262a
 phosphates; fertilizers, VI-36a; in manure, VI-278b-279b
 phosphor-bronze, alloy, VIII-7a
 phosphorus; fertilizer, VI-35b, 36a; animal food, VI-170a; in iron ore, VII-252a; extraction, VIII-411b, 412b; in manure, VI-278b; in diet, XI-186b
 Photocell, electric device, VIII-323b
 photo-elasticity VIII-328a
 photo-electric cell VIII-323b
 Photographic Emulsion VIII-324b
 Photography IX-370b; influence on art, XII-163a; camera, VIII-56b; high-speed photography, VIII-207a; miniature and high-precision cameras, VIII-59a; reflex camera, VIII-60a
 Photography, History of, VII-338b
 photogravure, printing process, VII-364b
 photomicrography VII-340b
 photo-printing machines VIII-111b
 photostat, drawing reproduction process, VIII-111b
 Photosynthesis, of plants, II-318a
 phototube (photo-electric cell) VIII-323b; multiplier phototubes, VIII-324b
 Phrygian cap XI-212a
 Physical Recreation, Central Council for, IX-270b
 Physiocrats, school of economists, V-417a

physiology XI-7a
 Physiotherapy XI-356b
 piano-accordion IX-401a
 pianoforte IX-304a
 pianola (player-piano) IX-377a
 pibroch, pipe, IX-278a
picadors, bullfighters, IX-104b
 'picaresque' novels XII-300a
 Picasso, Pablo (1881-), Spanish painter, XII-266b-268b
 Piccadilly Circus, London, *illus.* VII-8
 Piccard, Auguste and Jean (1884-), Swiss physicists and balloonists, IV-36b
 piccolo, wind-instrument, IX-487a, 317b
 pichichiago, armadillo, II-25b
 pickerel weed, water plant, VI-479b
 picketing, of strikes, VII-452a
 pickles XI-75a
 pickling, of metals, VIII-423a, 489b
 pick-up, of gramophone, VIII-400b
Pickwick Papers, Dickens, V-136b
 picnic XI-141b; *illus.* XI, opp. p. 176
 Picts, of N. Scotland, I-431a
 picture restoring XII-327b
 pictures, illustrations, of books and newspapers, IV-196a; reproduction, VII-363a
 Picture Transmission IV-313a
 picture-writing IV-493a; Chinese, IV-94b; cuneiform, IV-117b; hieroglyphic, IV-186b
 Piddock, soft-bodied animal, II-319b, wood-piddock, II-388a
 Pidgin-English IV-315a
 piecework, in industry, VII-463a
 Pied Piper, German legend, I-133a
 piepowder court, trade, X-264a
 Piero della Francesca (c. 1416-92), Italian painter, V-363a; *illus.* XII-216
 Pierrot, Pantomime character, IX-272a, 138b, 319a
Piers Plowman, William Langland, XII-8a
 piezo-electricity VIII-207a
 pig deer (babirusa) II-421a
 Pigeon II-320b; carrier pigeon, IV-314a
 Pigeon Post IV-314a
 Pigeon Racing IX-373b
 pig iron VIII-233b
 pigments, colouring, VII-325a
 Pigmies, *see* Pygmies
 Pigmy Moths II-321b
 Pig-sticking, sport, IX-375a
 Pigs VI-328a; tropical, VI-24a; wild, II-419b
 Pigs, Breeding of, VI-330b
 Pigs, Care of, VI-332a, 138b
 Pike, fish, II-322a; fishing, IX-16a
 pike, weapon, X-490a, 228b; *illus.* X-489
 pikelets, crumpets, XI-400a
 pilaf, rice dish, XI-383a
 Pilate, *see* Pontius Pilate
 pilchard, fish, II-207b
 pile bridges IV-60b
 pile dwellings, primitive settlements, I-283a
 piles, in building, VIII-45b, 42b
 Pilgrimage of Grace (1536-7) V-220a
 Pilgrimages I-366a; Moslem observance, I-260a; faith healing, XI-153a

Pilgrim Fathers I-129b; IV-262a
 Pilgrim's Progress, John Bunyan, XII-343b; V-62a
 Pilgrim's Way IV-315b; I-367a
 pillbox, fortification, X-166a
 pillory, punishment, X-432a
 pillowcases XI-19b
 pillow lace VII-260a
 pilot, air, IV-13a, 1a; test-pilot, VII-11b
 Pilot, Ship's, IV-316a
 pilot engine, railway, IV-37a
 pilot-fish II-372b
 pilot plant, chemical engineering, VIII-72a
 Pittdown man (fossil remains of primitive man) I-183b
 pimpernel, scarlet, plant, II-285a
 pimples XI-409a
 pince-nez XI-419a
 pincushion-gall, excrescence of rose-trees, II-173b
 Pindar (518-438 B.C.), Greek poet, XII-307b
 Pineapples VI-335b; II-169b
 Pinel, Philippe (1745-1826), French medical reformer, XI-310a
 pine trees VI-458b; II-95a; timber, VII-402b; woods, II-476b
 ping-pong (table tennis) IX-455a
 pinions, gearing, VIII-184b
 pink boll-worm, insect pest on cotton, VI-466a
 'pink'ing, of petrol engine, VIII-232a
 pin mould II-280a; *illus.* II-279
 pinnate leaf II-241a
 pint, liquid measure, VI-11a
 pintail duck II-125a
 'pintle' chain, engineering, VIII-25a
 Pintoricchio, Bernardino (1454-1513), Italian painter, XII-462b; *illus.* V-51; VII, opp. p. 288
 pipe and tabor, musical instruments, IX-171a
 pipe drains, land drainage, VI-119a
 pipe-fish II-369b
 pipes, casting, VIII-464b, 65b; concrete pipes, VIII-92a; smoking pipes, XI-412b
 Pipes and Pipe-making, music, IX-376a
 pipistrelle, bat, II-31a
 pipit, bird, II-453b
 pippin, apple, VI-27b
 piquet, card game, IX-113a, 378b
 Piraeus, *port*, Greece, III-33b; IV-322b
 piranha (piraya), fish, II-83b; *illus.* II-84
 Pirandello, Luigi (1867-1936), Italian writer, XII-220b
 Piranesi, Giovanni Battista (1720-78), Italian engraver, XII-141a
 Pirates IV-316b
 Pisanello (Antonio Pisano, c. 1395-c. 1455), Italian painter and medallist, XII-251b
 Pisano, Niccolò (b. c. 1225) and Giovanni (1245-1330), Italian sculptors, XII-214b
 Pisces (Fish), constellation, III-108b; in astrology, I-45a
 Pissarro, Camille (1831-1903), French painter, XII-205a; *illus.* XII-327
 Pistol Shooting IX-376a

piston, of internal combustion engine, VIII-229b, 230a, 407a; aircraft engine, IV-7b
 Pitcairn Island, Pacific Ocean, III-339b; *map* III-323
 pitch, of sound, III-411a; musical instruments, IX-336b; organ, IX-353b
 pitch, *see* asphalt
 Pitch Lake, Trinidad, West Indies, III-22b
 pitchblende, uranium ore, III-456b; V-115a
 pitch-change propeller mechanisms VIII-338b
 pitch-creosote, liquid fuel, VIII-173b
 pitcher-plant II-220a
Pithecanthropus erectus (Java man), fossil remains, I-182a
Pithecanthropus pekinensis (Peking man), fossil remains, I-182b
 Pitlochry power station, Scotland, VIII-219b
 Pitt, William (1759-1806), British statesman, V-364a, 483b
 Pitt, William, the Elder, Earl of Chatham (1708-78), British statesman, V-86a
 Pittsburgh, Pennsylvania, U.S.A., III-14b, 180b; *map* III-318
 pituitary gland XI-138a
 pit viper II-446a, b
 pixies I-169b
 Pizarro, Francisco (c. 1471-1541), conqueror of Peru, V-365a
 Place-names IV-319a
 placenta, in human reproduction, XI-22b
 'placer' mining VII-294b; VIII-299a
 plague XI-143a
 plagues, diseases of animals, VI-20b
 plaice, fish, II-152b; fishing, VI-117a, 156b
 Plainsong XII-344b
 Plaisterers' Company VII-107b
 planchette, fortune-telling, IX-244a
 Planck, M. K. E. L. (1858-1947), German physicist, III-356a
 plane, of geometry, VIII-186a
 plane, tool, *illus.* VII-82
 plane table, surveying instrument, VIII-429b
 plane tree VI-456b
 Planets III-340a; apparent movement, III-28b; distances, III-32a; in history of astronomy, III-23a
 Planetary Motion, Laws of, III-341a
 planetary travel IV-209a
 planing; metal, VIII-262a; wood, VIII-491a
 planishing, metal, VIII-387a
 plankton, sea animals, II-12a
 plan position indicators, radar instruments, VIII-348b
 Plant II-322b
 plantain, plant, Index p. 67
 plantain eater (touraco), cuckoo, II-110b
 plantation farming VI-136b, 462a
 plantations, cotton, VI-102b; slavery, X-412a
 plantations, tree, VI-174a
 Plant Breeding VI-336a; botanical names, VI-55b

Plant Defences II-323a
 Plant Diseases VI-339a
 plant families, Index p. 64
 plant hormones II-190a
 planting machines VI-119b
 plant-lice (green-flies) II-23b
 Plant Propagation VI-342a
 plants: classification of, II-89a; VI-55b; Index p. 65; environment, II-129a; food-storage, II-355b; growth, II-188b; movement, II-283b; nitrogen supply, II-292a; nutrition, II-294b; photosynthesis II-318a; reproduction, II-345a; respiration, II-349b; transpiration, II-434a
 plants: annual, VI-24b; biennial, VI-54a; perennial, VI-325a
 plants: climbing, II-90b; VI-90a; desert, II-119a; flowering, II-155a; greenhouse, VI-215a; herbaceous, VI-231a; house, VI-245a; pond, II-461a; rock-garden, VI-380b; sea-shore, II-373b, 375b; water, II-459b; VI-478a; winter-flowering, VI-491a
 Plants, Scientific Control, VI-343b
 plasma, in blood, XI-26a
 Plassey, battle of (1757), V-95a
 Plastering XI-357a, 103a
 plaster-of-paris VII-298a
 Plastics VII-341a; strain on, VIII-418a
 Plastics in Industry VII-343a; furniture, VII-199a; waterproofing, VII-466b
 Plate, *river*, South America, III-18b, 416a; *map* III-415
 Plate, battle of the (1939), X-123a
 plate, Sheffield, VII-385b
 plate armour X-36b
 plate glass VII-207a
 plate mill, grinding machine, VI-42a
 'plateresque', style of architecture, XII-431a; *illus.* XII, opp. p. 432
 platinotype paper VII-339a
 Platinum VII-345a
 Plato (c. 428-347 B.C.), Greek philosopher, V-366a
 Platypus, egg-laying mammal, II-325a
 Plautus, Titus, Maccius (c. 254-184 B.C.), Roman comedy writer, XII-90b
 Play, of children, XI-358a
 Player-piano (pianola) IX-377a
 Players' Theatre, London, IX-342b
 Playfair Cipher, code, IV-109a
 Playing Cards IX-377b; *illus.* IX, opp. p. 112
 Play Production IX-379b; *see also* acting; drama; theatre
 Pleasure Cruising IX-381b
 pleasure grounds, *see* fairs; parks and gardens
 plebeian class, of ancient Rome, I-409b
 plebiscite, decision of the people, X-362a
Pleiade, La, group of French poets, V-391a
 Pleiades, constellation, III-109b
 Pleistocene Age III-140a; *chart* I-166
 plesiosaur, prehistoric animal, III-352a
 pleurisy, disease, XI-382b
 pleuro-pneumonia, cattle disease, VI-23a
 Plimsoll, Samuel (1824-1898), 'the sailors' friend', IV-384b

Plimsoll mark (load line) IV-384b
 Pliny the Elder (A.D. 23-79), Roman writer, XII-129b; VII-13a, 15a
 Pliny the Younger (c. A.D. 61-113), Roman writer, XII-239b
 Pliocene Age I-166a; *chart* III-139
 pliosaur, prehistoric creature, III-352b
 Plough VI-344b, 4b
 Plough, constellation, III-109b; *illus.* III-107
 Plough Monday, ancient winter festival, I-175a
 plover, bird, II-451a-453a
 plumbago, graphite, VII-214a
 plumbing, household, XI-231a
 plumb line, in building, VIII-38a
 plume, feather, II-140b; trade, VI-145b
 Plume Moths II-325b
 Plums and Damsons VI-347a, 337b; fruit and seed structure, II-169a
 Plunkett, Sir Horace (1854-1932), Irish agriculturalist, VI-100a
 Plutarch (c. A.D. 46-c. 120), Greek writer, V-367b; XII-43b
 Pluto (Hades), Greek god, I-200b; Index p. 139b
 PLUTO (Pipe Line Under The Ocean) IV-78b; VIII-483b
 Pluto, planet, III-344a, 341a; *table* III-340
 plutonic rock III-378a
 plutonium, element, III-38a; VIII-315a
 pluvius insurance policy VII-246b
 Plymouth, Devon, III-157a; fishing, VI-156b
 Plymouth, Mass., *port*, U.S.A., IV-262a
 Plynlimmon, *mt.*, Wales, III-470b
 Plywood and Veneers VII-345b; furniture, VII-198a, 75a, 76b
 pneumatic road drill VIII-86b
 pneumatic tire IV-484b
 pneumonia XI-382b
 Po, river, N. Italy, III-241a; *map* III-160
 Poachers VI-348a; IX-294a
 pocket XI-210a
 pocket battleship X-52b
 Pocock, Nicholas (c. 1741-1821), painter, *illus.* X-458
 Podiebrad, George (1420-71), King of Bohemia, X-212a
 Poe, Edgar Allan (1809-49), American writer, XII-16a, 102a
 Poetry XII-346b; modern, XII-270b; translation, XII-460b; versification, XII-468a
 poetry: ballad, XII-36a; elegy, XII-127a; epic, XII-133b; epigram, XII-135a; lyric, XII-247b; metaphysical poetry, XII-257b; nature poetry, XII-295a; ode, XII-307a; pastorals, XII-334a; sonnet, XII-428b
 pogroms, massacres, I-276b
 pointer, dog, IX-194a
 Pointers, stars, III-109b; *illus.* III-107
 pointillism (divisionism), painting technique, XII-162b, 205a
 pointing, of brickwork, VIII-38b
 point of order, parliamentary, X-194a
 points and crossings, railway, VIII-363b; control of, IV-135a
 Point-to-Point Races IX-383a
 poison, as a plant defence, II-324b

Poison-fishes II-326a
 Poison Fishing VI-350a
 poison gas X-173b
 poisoning, first aid, XI-169b; food poisoning, XI-180b
 poison vine (poison ivy) II-324b
 Poker, card game, IX-384a; gambling, IX-249a
 poker-face, origin of expression, IX-384a
 Poland III-344a; *map* III-160; peoples, I-368b; language, IV-420a; after First World War, X-161a; German attack, 1939, X-403a
 polar bear II-32b
 polarimeter, measuring instrument, VIII-328a
 polariscope, optical instrument, VIII-327a
 polarity, of magnets and lodestones, III-270a
 polarization of light III-258b; VIII-327a; in three-dimensional films, VIII-74b
 Polarized Light Apparatus VIII-327a
 polaroid, optical material, VIII-327a
 Polar Regions III-345b
 Polar Regions (Exploration) III-347b
 polders, reclaimed lands, Holland, III-219a
 polecat II-463b
 polenta, Italian dish, XI-350a
 Poles, people of central Europe, I-368b
 Pole Star III-109, 26b; *illus.* III-107; navigation by, III-28a; IV-287b
 pole vault, athletics, IX-36a
 Police, History of, X-323a
 Police Court X-256a
 Police Forces X-320a; C.I.D., X-82b
 Police Gazette X-83a
 Policeman X-326a; detectives, X-82b
 policewoman X-328b
 policy, insurance VII-245a
 Poliomyelitis XI-360a, 345a
 Polish Corridor III-344a
 Polish language IV-420a
 polishes XI-68a
 Politburo, committee, U.S.S.R., X-386a
 political economy VII-174a
 Political Parties, British, X-329a, 130b; cabinet government, X-266a
 political parties, of other countries, X-331b; Australian, X-49a
 political theory I-361b; democracy, X-129a; government, X-174b; Greek political thought, I-205a; nation and state, X-289b
 Politics, Aristotle, V-17b
 polka, dance, IX-50b, 51b
 pollack, fish, II-93b, 94a; fishing, IX-18b
 Pollaiuolo, Antonio (1432-98), Piero (1443-96), Florentine painters, XII-155a; *illus.* XII-453
 pollarding, of trees, VI-101b
 pollen, of flowers, II-159a
 pollination II-346b; VI-150b
 pollution, of rivers, measures against, X-113a
 Pollux, Greek mythol., Index p. 142a
 Polo, game, IX-384b

polonium, element, V-115b
 polyanthus, plant, VI-364a; family, Index p. 66
 Polycarp, St., 2nd century A.D., I-427a
 Polycleitus, Greek sculptor, 5th century B.C., XII-83b
 Polydeuces (Pollux), in Greek mythol., Index p. 142a
 polygamy, having more than one wife, I-328b; in Islam, I-260b, 31a
 polygonaceae, plant family, Index p. 70
 Polyhymnia, Greek muse, I-329a; Index p. 142a
 Polynesian Is., Pacific Ocean, III-330a; *map* I-350
 Polynesian language IV-306a, 218b
 Polynesians I-370b; art, XII-304a, 306b; physical features, I-393a; *illus.* I-391; taboos, I-466b
 polyp, sea-animal, II-226b, 97a
 Polyphemus, giant in Greek mythol., Index p. 142a
 Polytechnics X-332a
 polytheism (belief in more than one god) I-197a
 polythene, plastic material, VII-343a, 344b
 polyvinyl chloride (P.V.C.), plastic material, VII-343a, 344a
 pomades, perfumed fats, VII-336b
 pomander XI-354a
 pomegranate, fruit, VI-463b; II-168b
 pomelo, fruit, VI-89b
 pomes, type of fruit, II-169b
 pomard (pommer), wind instrument, IX-487a
 'Pomp and Circumstance', marches, Elgar, V-153b
 Pompeii, ancient city of Italy, XII-348b; XI-259b
 Pompey the Great (106-48 B.C.), Roman soldier, V-367b
 pond plants II-459b
 pond skater (water measurer), insect, II-59a
 ponies IX-289a; Pony Club, IX-386a; riding, IX-405a
 Pont du Gard, Roman viaduct, S. France, IV-60b; *illus.* I-412
 Ponte, Lorenzo da (1749-1838), poet and librettist, V-324b
 Pontifex maximus, high priest, of ancient Rome, I-409b, 411b
 Pontine Marshes, Central Italy, VIII-246a
 Pontius Pilate, Procurator of Judaea A.D. 26-36, I-271a; III-245b; Index p. 130a
 pontoon-bridges IV-60a
 pontoon quays and breakwaters VIII-107b
 Pony Club IX-386a
 poodle, dog, IX-195a
 pooka, elf, I-162b
 Pool of London III-434a
 Poor Clares, nursing nuns, XI-333a; Index p. 134a
 Poor Law X-332b; child welfare, X-79b; workhouse, X-496a
 poor-man's-weatherglass (scarlet pimpernel), plant, II-285a
 popcorn VI-276a; IX-431a
 Pope, head of Roman Catholic Church,

- I-116b; as arbitrator, X-33b; election of, I-407a; infallibility of, I-407a; Papal states, I-408a; Vatican, XII-462a
- Pope, Alexander** (1688-1744), English poet, V-368a; XII-33b; satire, XII-406a
- Popham, Sir Home** (1762-1820), admiral, IV-151b
- poplar, tree, VI-457b, 310b; seeds, II-379b
- Popocatepetl, *mt.*, Mexico, III-288a
- poppy, flower, II-159a, 285a; fruit, II-166b; seed dispersal, II-379b; as weed, *illus.* VI-481; family, Index p. 64
- Popski's Private Army X-108b
- Population** I-372a; vital statistics, X-482a
- Poquelin, Jean Baptiste (Molière 1622-73), V-314b
- porbeagle shark II-384b
- Porcelain** VII-348a; Chinese, VII-348b; XII-72a; figures, XII-355a, 378b; *illus.* XI, opp. p. 416.
- Porches** XI-361a
- Porcupine**, rodent, II-327b
- porcupine fish II-327a; *illus.* II-149
- 'porcupine wood' VI-94b
- pork XI-301b; *see also* pigs
- porphyry, rock, III-378b
- porpoise whale II-469a; hunting, VI-483b
- port, wine, VII-472b
- Port Health Authority X-357a
- Portland cement VII-91a
- Portland vase XII-28a; *illus.* XII-27
- Port of London III-434a; IV-235b
- Port of London Authority IV-324a; X-113a; Health Authority, X-357a
- Portolan navigation charts IV-92b
- Portraits** XII-349b; pastels, XII-333a
- Port Said, Egypt, III-151a; *illus.* III-365; *map* III-5
- Ports, History of**, IV-322b; medieval port, *illus.* VII-222
- Ports and Harbours** IV-320b; docks and harbour construction, VII-106b; quarantine regulations, X-357a
- port side, aboard ship, IV-385a; lights, IV-380b
- Portsmouth, Hants, X-292b; smugglers' landing places, X-417
- Portugal** III-349a; government, X-454a
- Portuguese** I-373b; art, XII-431a
- Portuguese colonization X-103a; I-74a; Angola, III-13b; Mozambique, III-142a, b, 6a; *map* III-5
- Portuguese language IV-424b
- Poseidon, Greek god, I-200b, 335b; Index p. 142a
- positive, photography, VII-339a
- positron, particle of atom, III-116b
- possession, in law, X-344b
- postage stamps IV-324b
- Postal Orders, for money payments, IV-328b
- post-chaise, carriage, *illus.* IV-87
- Poster** XII-352a; IV-199a; bill-posters, VII-9a; *illus.* VII-7
- poster-colour, painting method, XII-327a, 353b
- post-horses IV-431b, 194a
- Post-Impressionist Painting** XII-353b
- posting inns IV-431b
- postman IV-330a
- Postmarks and Postage Stamps** IV-324b
- Postmaster-General IV-329a, 327b
- post-mortem X-115a
- Post Office** IV-329a
- Post Office, History of**, IV-326b
- Post Office Savings Bank VII-29a
- Potaro, *river*, British Guiana, South America, III-248a
- potash, compound of potassium, VII-13b; fertilizers, VI-36b, 278b
- potassium, chemical element, III-278; use in fireworks, IX-226b; *see also* potash
- potassium chloride (sylvite) VII-14a
- potato blight, fungus disease, VI-340b, 351a, 450b; Irish potato blight (1845-7) VI-129b
- Potato Dishes** XI-362a
- Potatoes** VI-350b; seed, VI-401b; tubers, II-410b; potato family, Index p. 66
- poten distiller, *illus.* VII-161
- potential energy VIII-280b, 142a
- Potiphar, Egyptian, in Old Testament, Index p. 130a
- pot plants VI-245a
- pot-roasting XI-384b
- Potteries, industrial area of Central England, III-156a
- Pottery** VII-349a; American-Indian, XII-13b; I-12b; Chinese pottery and porcelain, *illus.* XII, opp. p. 224; Greek, XII-182b; I-205a; Japanese, XII-226a; prehistoric, I-379b; potter's wheel, VII-350b; *illus.* VII, opp. p. 128
- Pottery and Porcelain Figures** XI-355a; Staffordshire, *illus.* X-450
- Potting** VI-353a; indoor bulbs, VI-60b; plant pots, VI-393b
- pouched mice II-262a
- poult, young turkey, XI-364a
- Poultry** VI-356a; *illus.* VI, opp. p. 336; breeding, VI-429b; egg trade, VII-175a; tropical poultry, VI-24a
- Poultry, Care of**, VI-358a
- Poultry and Game** XI-363b; VII-353a
- pound, unit of measurement, VIII-272b
- poundal, unit of measurement, VIII-273a
- Poussin, Nicolas** (1594-1665), French painter, V-369b; XII-235b; *illus.* XII, opp. p. 160
- powder, cosmetic, VII-134b
- power distribution: electricity, VIII-1919; gas, VII-203b
- power, energy, VIII-142a; measurement of, VIII-115a
- power: fuel, VIII-171b; hydro-electric, VIII-219a; nuclear, VIII-315b; solar, VIII-397b; steam, VIII-406a; water, VIII-475a; wind, VIII-485b
- power breeder reactor VIII-391a
- Power for Farming** VI-361b
- Power Station** VIII-328b, 191a, 122a; hydro-electric, VIII-219b, 192b
- power transmission: belt and chain drive, VIII-22b; gears, VIII-182b; hydraulics, VIII-212b
- poxes, animal diseases, VI-20b
- Pragmatic Sanction (1740), political agreement, V-293b
- Prague**, Czechoslovakia, III-350b; *map* III-160; university, X-476b
- prairie dog II-260b
- prairies III-196a; of Argentina, III-19a; of Canada, III-70b; of U.S.A., III-451b, 198a
- Prakrit, Indian language, IV-199b
- Prandtl, Ludwig, 20th-cent. German scientist, VIII-217a
- pratique*, licence issued to ship, X-357a
- prawn, Dublin, shell-fish, II-253b
- Prawns and Shrimps** II-328a, 109b; prawning, VI-414b
- Praxiteles** (4th century B.C.), Greek sculptor, V-371a
- Prayer Book**, Church of England, I-375a
- prayer-wheel, Buddhist, I-398a
- Praying Mantis**, insect, II-329b
- prebendary, of cathedral, I-127b
- Pre-Cambrian Age, *chart* III-139; rock, III-138b
- precedence, social, XI-416a
- precession, swing, of earth's axis, III-135a, 29b; gyroscope, VIII-193a
- precious stones III-351a
- precision, in engineering, VIII-275b; precision boring machines, VIII-113b; precision drawing instruments, VIII-109b
- Predestination, doctrine of John Calvin, I-91b
- Prefabrication** VIII-331a; houses, X-200a
- prefect, French local government official, X-253a
- pregnancy, of animals, II-344b; Index p. 144; of humans, XI-381a
- Prehistoric Animals** III-351a; II-137b
- Prehistoric Art** XII-356b
- Prehistoric Man** (Western Europe) I-375b; clothing, XI-118a; dwellings, XI-369a, *illus.* XI-387; fishing, VI-155a; flint mining, VII-92b; iron smelting, VIII-235b
- prehistoric music XII-364a
- prehistoric monuments I-302b; Avebury, I-52a; Stonehenge, I-455b
- Prehistoric Pottery** I-379b; VII-350a
- Prehistoric Tools and Weapons** I-381b; plough, VI-140b
- pre-ignition ('knocking'), of petrol engine, VIII-232a
- premier, *see* prime minister
- premium, insurance, VII-245a
- Pre-Raphaelites**, school of painters, XII-360a, 133a
- Presbyterian Church I-91b
- Prescott, W. H. (1796-1859), American historian, V-109a
- Presents** XI-364b
- preservation, food, XI-181a
- President of French Republic**, X-167b; of U.S.A., X-21a
- press, *see* printing
- press, early wardrobe, XI-56a
- Press, the, *see* newspaper; journalist; Press photographer, IV-360b
- Press Association** IV-297b
- press gang X-381b
- pressing, metal, VIII-166b; sheet-metal work, VIII-386a

Pressure III-353a; in aircraft cabins, IV-189a; water pressure, diving, IV-128a
 pressure angle, gearing, VIII-183a
 Pressure Cooking XI-366b
 Pressure Gauges VIII-332b
 pressure pipes, of hydro-electric schemes, VIII-219b
 pressure suits: diving, IV-128a; flying, IV-190a
 Prester John (c. 12th century), legendary Christian ruler, V-371a
 Pretender, the Old (James Francis Edward Stuart, 1688-1766), V-430b
 Pretender, the Young (Charles Edward Stuart, 1720-88), V-430b
 Pretoria, Transvaal, South Africa, III-413b; *map* III-5
 Prévost D'Exiles, Antoine François, Abbé (1697-1763), French writer, XII-165a
 Priam, King of Troy, Index p. 142a
 prices VII-462a, 423a; costing, VII-135a
 prickles, as a plant defence, II-323b
 prickly heath, shrub, VI-324b
 prickly pear II-67a
Pride and Prejudice, Jane Austen, V-25b
 Priest I-384b; in Church of England, I-128a
 Priestley, Joseph (1733-1804), scientist and thinker, V-371b; I-481b; discovery of ammonia, VII-16b
 primary schools X-142b
 primates, class of animals, II-273b; I-165b
 prime cost VII-135a
 prime minister X-265b; French, X-167b
 prime numbers VIII-13a
 Primitive Art XII-361b; 4a; *see also* prehistoric art
 Primitive Costume XI-367a
 Primitive Dwellings XI-369a
 Primitive Germanic language IV-169a
 primitive language IV-425a
 Primitive Money VII-354a; cattle, VII-298b
 Primitive Music XII-364a
 Primitive Ships IV-331a
 primrose VI-364a; flower, II-374b, 159a; fruit, II-168a; root, II-411b; Index p. 66
 primrose, evening, II-284b
 primulaceae, flower family, VI-364a; Index p. 66
 Primulas VI-364a
Prince, The, Machiavelli, V-288a
 Prince Edward Island, province, Canada, III-69b; I-92b
 Princeton University, U.S.A., X-24b
 Princip, Gavril, 20th cent. Bosnian assassin, X-159a
 Printing VII-357b; inks, IV-202a; illustrations, VII-363a; newspapers, VII-308b
 Printing, History of, IV-333, 51b; illustration, IV-197a; XII-478a
 printing reproduction processes VII-363a; etching and engraving, XII-138a; lithography, XII-245a; wood-engraving and woodcuts, XII-478a
 Printing-type VII-360b; type-metal, VIII-7a

prints XII-365b; photographic, IX-373a; VIII-325b
 Prior, Matthew (1664-1721), English poet, XII-92a
 Priwet marshes, Byelorussia, U.S.S.R., III-64b
 Priscilla, wife of Aquilla, New Testament, Index p. 130a
 prism, geometric figure, VIII-188b
 prism, in spectroscope, VIII-401b
 prismatic compass IV-110b; in surveying, VIII-428b
 prison camps X-336b
 Prison Commission X-335b
 Prisoner-of-War X-335b
 Prisons, History of, X-337b; punishment, X-353a
 private bill, parliamentary, X-1b
 private enterprise, in business, X-70b
 Private Schools X-341b
 privet, shrub, Index p. 67; hedges, VI-191a, 192a
 privet hawk moth II-198a
 privilege, legal protection, X-241a; in parliament, X-194a
 Privy Council X-342b; Judicial Committee, X-31a
 privy-midden XI-395a
 Privy Purse, Keeper of, X-379a
 Privy Seal, of British Crown, IV-395b
 prize fighting IX-82a
 prize money, naval, X-384a
 proa, canoe, IV-85a
 probability theory III-357a
 probate, official recognition, of wills, X-208b
 Probate, Divorce, and Admiralty Division, High Court, X-184a
 Probation Officer X-343b
 Process Reproduction, printing, VII-363a; paper, VII-329b
 Procrustes, Greek legend, Index p. 142a
 Proctor, aircraft, IX-10b
 proctor, university official, X-480b
 procurator-fiscal, in Scottish law, X-392b
 producer-gas VIII-174a
 Production VII-366a; costing, VII-135a; industrial psychology, VII-236b; labour planning, VIII-336b; prefabrication, VIII-331a
 Production Engineering, mass production, VIII-334b
 profit and loss account, book-keeping, VII-51b
 Profits VII-367a, 457a; profit-sharing, VII-129a
 Programme Music XII-365b
 Prohibition, of alcohol, in U.S.A., X-450a
 projectiles, science of, VIII-19a
 projections, of maps, IV-254a
 projectors, film, IX-134a; VIII-73b
 Promenade Concerts IX-148a
 Prometheus, hero, Greek mythol., Index p. 142a; I-159b
 Prominent Moths II-329b
 promissory note, for money, VII-43b
 Prong-buck (Prong-horn), mammal, II-331a
 pronunciation IV-429b; accent, IV-479b; English, IV-479b, 219a; stand-

ard English, IV-432a; voice function, IV-478b
 proof correcting, printing, IV-50a; VII-359b
 Propaganda and Advertising IV-336b; radio, IV-298b; VII-10a; *see also* advertising and publicity
 propagation of animals II-344a; stock breeding, VI-426b
 propagation of plants VI-342a; fertilization, VI-150b; fruit propagation, VI-181a
 propellants, explosives, VIII-157a-158b
 Propellers, Aircraft (airscrews), VIII-337b; IV-8b
 Propellers, Marine, VIII-339a; IV-404b, 435b
 Propertius, Sextus (b. c. 51 B.C.), Roman poet, XII-127b; V-343a
 Property Act (1922) VI-258b
 Property Law X-344a
 Prophecy I-386a; Hebrew prophets, I-220a, 386a; Isaiah, V-238b; Jeremiah, V-243b
 Proportional Representation X-346a
 Proserpina, *see* Persephone
 Prospecting, mineral, VIII-341a
 Protogoras, Greek philosopher, 5th century B.C., XII-188a
 protection, economic policy, VII-250a
 Protective Coloration, of insects, II-331a
 protective structure, of plants, II-324a
 proctectorate X-61a, 101b
 protein: in animal food, II-294a; VI-169a-170a; in plants, II-292b; in human food, XI-336a; as cause of allergy, XI-3a
 Proterozoic age, *chart* III-139
 Protestant Churches I-395, 117b; tree of relationships, I-118
 Protestant Churches: Baptist, I-64a; Calvinist, I-91a; Church of England, I-124a; Congregationalist, I-129a; Lutheran, I-287a; Methodist, I-307b; Moravian, I-328a; Presbyterian, I-91a; Waldensian, I-486a
 Proteus, Greek mythol., Index p. 142a
 prothallus, first growth, of fern, II-142a
 protococcus, single-celled plant, II-3a, b
 Proto-Hittites (Luvians), of Asia Minor, I-228b
 proton, particle of atom, III-36a, b; VIII-209a
 protoplasm, of animal and plant cells, II-282a, 294a
 Protozoa, single-celled animals, II-334a; causing animal diseases, VI-18a; causing human diseases, XI-459b; senses, II-381b
 protractor, drawing instrument, VIII-109b
 Proust, Marcel (1871-1922), French novelist, V-372a, XII-301a, 460b
 Prout, William (1785-1850), English chemist, III-35b
 Provence, S. France, dances, IX-231a, b, 235a; poetry, XII-248b; troubadours, XII-425a
 Proverbs XII-367a
 Proverbs, book of the Bible, I-421a
 Provincial Universities (English) X-346b
 provision trade VII-216a

- provost: of cathedral, I-127a; in Scottish local government, X-251b
- Pruning** VI-366a
- Prussia, former kingdom of N. Germany, I-189b; army, X-35a; under Frederick the Great, V-171b; in Napoleonic Wars, X-279a; under Bismarck, V-43b
- Prynne, William (1600-69), pamphleteer, IV-304a
- Psalm* I-70; in early Church, XII-196b; metrical versions, XII-197a; music, XII-398a
- psalters, medieval, XII-202b
- psaltery, Hebrew musical instrument, IX-340a
- Psyche, maiden, Greek mythol., Index p. 142a
- psychiatry, treatment of mental illness, XI-373a, 310b
- Psychical Research, Society for, I-454b
- psycho-analysis XI-373a, 311a; V-173a
- Psychology XI-371a; industrial, VII-236b
- psychosomatic medicine XI-314a
- psychotherapy XI-310b; child guidance clinics, XI-56b
- Ptah, god, Egyptian mythol., I-160b
- ptarmigan, bird, II-187a
- pterodactyl, prehistoric creature, III-352b
- pteropod ooze, ocean deposit, III-327a
- Ptolemaic (geocentric) system, universe, III-23b; V-374a, 107a
- Ptolemy, Claudius (2nd cent. A.D.), Greek astronomer and geographer, V-373b; III-24a; world known to, Index p. 50
- Ptolemy Dynasty (323 B.C.-30 B.C.), Kings of Egypt, V-372b
- ptomaine poisoning XI-181a
- 'Pub' Games IX-387a
- publican, Roman tax collector, X-443b
- public assistance X-281a
- Public Buildings XII-368a
- Public Health**: history, X-348a; modern organization, X-349b; food hygiene, X-161a; health centre, X-183a; sanitation, XI-393a; X-135a; epidemic diseases, XI-143a
- public-houses IV-202a; 'tied houses', VII-42a; owned by government, X-449b
- publicity, advertising, VII-6a
- Public Libraries IV-226b
- Public Schools X-351a
- Public Schools Challenge Cup, athletics, IX-34b
- Public Trustee, government official, X-468b
- Public Utility Companies** VII-368a; nationalization, X-288b
- Publishing** VII-368b; IV-48a
- Puccini, Giacomo (1858-1924), Italian composer, XII-312a
- puddings XI-432a
- pudding-stone (conglomerate), kind of rock, III-105b
- puddling, iron, VIII-233b; furnace, VIII-237b
- Pueblo Indians, of North America, I-12b, 10a; art, XII-13a
- Puerto Rico, I., West Indies, III-484b, 485b; X-106b; people, I-488b
- puff-ball, fungus, II-346a, 170b
- puffer-fish II-326b
- puffin, sea bird, II-26a
- Pugin, Augustus Welby Northmore (1812-52), English architect, XII-180b
- pulleys VIII-98b, 22b
- Pullman railway cars IV-344b
- pulque*, Mexican drink, III-288a
- pulse-rate, of heart, II-49b
- pulses, edible seeds of leguminous plants, XI-48a
- pulsing, sound testing method, VIII-2b
- pulverized-fuel firing, of boiler, VIII-32b
- Puma, mammal, II-336a; hunting, IX-295a
- pumice, rock, III-378a
- pumping engines VIII-151b
- pumpkin, gourd vegetable, VI-206a
- Pump Room, Bath, V-331a
- Pumps** VIII-342a; in mines, VIII-305b; scoop-wheels, VIII-160a; steam pumps, VIII-150b
- pun (play on words) XII-149a
- Punch and Judy IX-388b
- Punch*, periodical, XII-59b; IV-248a
- 'punched-card' calculating machines VII-3a; VIII-54a; X-483b
- Punchinello (Pulcinella), character in early Italian comedy, IX-272b
- punching, metal, VIII-168a
- Punctuation** IV-338b
- Punishment, History of**, X-353a
- Punjab, region, India/Pakistan, III-234a, 227a, 332a; people, I-244a
- Punjabi language IV-199b
- Punta Arenas, Chile, South America, III-86a
- Punting** IX-389b
- pupa, stage in development of insect, II-222a
- pupation, of fly, II-160a
- Puppets** IX-390b
- Puppets, Making of**, IX-392b
- Purbeck marble VIII-270a; XII-452a
- Purcell, Henry** (c. 1659-95), English composer, V-374a
- purchase tax X-445a
- Puritans I-129a, 16a; III-57a; in Civil Wars, X-97a; voyage of *The Mayflower*, IV-261b
- Purple Emperor Butterfly** II-337a
- purple moor grass II-201a
- purser, ship's, IV-409a
- purslane, sea, sea shore plant, II-375b
- pursuivants, royal messengers, IV-327a
- Pusey, Edward (1800-82), leader of Oxford Movement, V-335a
- Pushkin, Alexander** (1799-1837), Russian poet, V-375a
- Pushtu (Pashto) language IV-312a
- puss moth II-330b
- putlogs, scaffolding, VIII-381a
- Puzzles** IX-393b
- P.V.C. (polyvinyl chloride), plastic material, VII-343a, 344a
- Pygmalion, King, Greek mythol., Index p. 142a
- Pygmies** (Negrillos) I-387a; of Andaman Is., I-24b
- pyjamas XI-326b, 327a
- pylons, electricity, VIII-191b
- Pym, John (1584-1643), Parliamentary leader, V-83b
- pyracantha, flowering shrub, VI-165b
- pyramid, figure, VIII-188b
- Pyramids** XII-370a; I-156b; the Great Pyramid, I-156b; IV-365b; of Mexico, I-308b
- Pyramid Texts*, Egyptian sacred writings, I-419b, 159a
- Pyrenees, mts.**, III-354a; dances of, IX-234a, 235a; mountain passes, IV-280a
- pyrethrum, insecticide, VI-248b
- Pyrex, glass, VII-207a
- pyrites, mineral, VII-4b; *illus.* III-289
- pyrometer, radiation thermometer, VIII-443b, 450b
- Pythagoras** (6th cent. B.C.), Greek philosopher and mathematician, V-376a; discoveries in music, XII-408a; theory of universe, III-23a
- Pythagoras' Theorem VIII-187a
- Pytheas** (4th cent. B.C.), Greek explorer, V-376b
- Pythian games, of ancient Greece, IX-347b
- python, snake, II-52a, b, 397b; *illus.* II-398
- pyx, trial of the coinage, VII-106b
- Qarqar, battle of (854 B.C.), I-42b
- Q.C. (Queen's Counsel), barrister, X-238b
- Q-ship X-298b
- quadrille, dance, IX-50b
- quadrirème, ancient ship, IV-100a
- quagmires, bogs, III-300b
- quail, bird, II-311a; shooting, IX-249b; cooking, XI-363b
- Quakers** (Society of Friends) I-388a; Pennsylvania, V-356a; I-388b; X-339a
- quanting, punting, IX-389b
- quantity surveyor VIII-42b
- Quantum Theory**, of modern physics, III-356a
- Quarantine Regulations** X-357a
- quarrying: slate, VII-398b; stone, VII-414b
- Quarrying Machinery** VIII-345a
- Quarterly Review* XII-336b; V-257a
- Quartermaster-General, military office, X-488b
- Quarter Sessions**, court of law, X-358a
- Quarter-staff**, medieval sport, IX-397a
- quartet, music, XII-61b
- quartz, mineral, III-290a, 391b; *illus.* III-289, opp. p. 288
- quartz crystal VIII-469a; clock, VIII-456a; in radio transmitter, VIII-207a
- quartzite, rock, III-380a
- Quaternary (Pleistocene) Age III-140a; *chart* III-139
- quatrain, stanza of poetry, XII-470b
- quatrefoil, ornament, *illus.* XII-320
- quay construction VIII-107b
- Quebec, Canada, III-357b; capture from French (1759), V-487b; *province*, III-69b; asbestos deposits, VII-19b
- Quebec Bridge IV-340a

Quechua, Indian tribe of South America, I-360b
 Queen Alexandra's Royal Army Nursing Corps X-493b
 Queen Anne, reign of (Augustan age), XII-32b; furniture, XI-194b, 51a
 Queen Elizabeth, The, liner, IV-341a
 Queen Mary, The, liner, IV-341a
 Queen Mary College, London, X-255a
 Queen of Sheba, Index p. 131a
 Queen of Spain fritillary, butterfly, II-164b
 Queen's (King's) Bench Division, high court, X-184a
 Queensbury rules of boxing IX-82b
 Queens' College, Cambridge, X-67b
 Queen's Counsel (Q.C.), barrister, X-238b
 Queensferry, Scotland, IV-162a
 Queensland, province, Australia, III-41b, 58b
 Queen's Messengers X-163b
 Queen's Proctor X-134a
 Queen's Ware, Wedgwood pottery, V-476a
 quenching, of metals, VIII-202b
 quern, millstone, VII-192b
 question time, House of Commons, X-194a
 Quetzalcoatl, god of ancient Mexico, I-7a, 310b
 quezal, bird, II-435b
 Quiberon Bay, battle of (1759), V-214b
 quicklime VI-268b; XI-357b
 Quicksands III-358a
 quicksilver, metal, VII-292b
 quill pen IV-495b
 quills, geese, VI-147a
 quilting XI-322b; *illus.* XI-19b, 20a
 quinces VI-287a
 quinine, drug, XI-125a, 304b, 460b
 quinnot, salmon, II-361b
 quinquereme, ancient ship, IV-100a
 Quintain, medieval sport, IX-397b
 Quintilian (Marcus Fabius Quintilianus, A.D. 40-c. 100), Roman orator, XII-239b
 quire, in bookbinding, IV-52b
 Quito, Ecuador, South America, III-148a; *map* III-415
 quoits, game, IX-177b
 Quotas, restrictions on goods, VII-371a
 Quraish, Arab people, V-313a
 Qur'an (Koran), sacred book of Islam, I-422a, 260b; V-314a
 Rabbis, Jewish teachers, I-385a, 275b
 Rabbit, wild, II-338a; as agricultural pest, VI-475a
 rabbit-fish (chimaera) II-386a
 rabbit fur VII-201a, 220b; types of coat, VI-369a
 Rabbit Keeping VI-369a
 Rabelais, François (c. 1494-1553), French writer, V-377a; XII-404a
 rabies, disease of dogs, VI-20b; V-351a
 Raccoon, mammal, II-338b; fur hunting, VI-190a
 racecourses, horse-racing, IX-292a; *see also* racing
 races, of ball bearings, VIII-22a
 Races and Peoples I-390a
 Rachel, wife of Jacob, Index p. 130b

Rachmaninov, Serge (1873-1943), Russian musician and composer, V-377b
 Racine, Jean (1639-99), French dramatist, V-377b; XII-457b
 racing, *see* aircraft racing; athletics, track events; boat-races; chariot racing; cycle racing; greyhound racing; horse racing; motor-car racing; motor-cycle racing; pigeon racing; swimming races
 rack, instrument of torture, X-453a
 rack-and-pinion gears VIII-184b
 rack-and-pinion railways IV-282b
 Rackets, ball game, IV-398b
 Radar, radio-location, VIII-347a; air-navigation, IV-291a; sea-navigation, IV-297a; surveying, VIII-427a; in warfare, X-401b, 46a, 8a; wave-guides, VIII-205a
 Radcliffe, Mrs. Ann (1764-1823), British novelist, XII-389a
 Radcliffe Camera, library, Oxford, IV-47a
 radiant heat III-214b
 radiant heating, domestic, VIII-197b
 Radiation III-359a; particle theory of radiation, III-356a; X-rays, VIII-493a
 radiation thermometer VIII-450b
 radiator, central heating, VIII-197b; motor-car, VIII-232b
 Radicals, political party, X-329b
 Radioactive Isotopes VIII-349b
 radioactive phosphorus VIII-350a
 radioactive sodium VIII-350a
 radioactivity III-36a; V-115a; VIII-349b; use in radiotherapy XI-374a; VIII-352b
 Radioactivity, Detection of, VIII-353a
 radio broadcasting IX-95b; IV-69b; corporations, IV-67b; news broadcasting, IV-298a
 radio compass IV-291a
 Radio Engineering VIII-356b; interference, VIII-207a, 358b; reception, VIII-206b; rediffusion (wireless exchanges), IV-355b
 radiography VIII-351b; medical (X-rays), VIII-494b; XI-374a
 radiolaria, single-celled animals, II-334b
 radio-location (radar) VIII-347a
 radio navigation, air, IV-290b; sea, IV-296b
 radio officer; civil aircraft, IV-14a; service aircraft, X-57a
 radio range, navigational aid, IV-291a
 radio receivers VIII-357a, 359b
 radio reporter IV-359b
 radio-sondes, meteorological instruments, VIII-292a
 radio telephony IV-426b; mobile telephones, IV-449b
 Radiotherapy XI-374a
 radio transmission and reception, *diag.*, VIII-359
 radio transmitter VIII-356b; oscillator, VIII-207a
 radio waves VIII-356b, 204b
 radish, plant, VI-397b; II-411b; family, Index p. 64
 radium, radioactive element, V-114b; III-37b; XI-374a

radon, gaseous element from radium, XI-374b
 raffia, fibre, VI-154a
 Raffles, Sir Thomas Stamford (1781-1826), colonial administrator, V-379a
 raffles, lotteries, IX-310a
 rafflesia, tropical plant, II-436b
 rafters XI-385a
 ragtime music XII-228b
 ragwort, plant, VI-482a; Index p. 71
 Rahere (d. 1144), court jester to Henry I, IX-207a
 Raikes, Robert (1735-1811), promoter of Sunday Schools, X-437a
 'railex', postal delivery service, IV-145b
 Rails, birds, II-339b
 Railway Accidents IV-342b
 Railway Clearing House VII-109a
 Railway Coaches IV-343a; construction, VIII-364b; couplings, IV-116b
 Railway Construction VIII-360b
 railway lines VIII-361a, 363a; gauges, IV-168a; weather obstruction, IV-101a
 railway locomotives IV-239a; brakes, IV-57b; diesel, IV-125a; electric, IV-132a; gas turbine, IV-167b; steam, IV-241a
 Railwaymen IV-345b
 Railway Rolling Stock VIII-364a
 railways: bridges, IV-63b; engine-sheds, IV-137b; guides and time-tables, IV-454a; marshalling yards, IV-259a; passenger classes, IV-344a; stations, IV-432b, 345b; train control, IV-459a
 Railways, History of, IV-347b; finance, VII-248a; railway hotels, VII-229a
 railway signalling IV-411b
 Railway Speed Records IV-350b
 Railway Spotters' Clubs IX-399b
 Railway Systems IV-353a
 railway trains: miniature, IV-268a; model, IX-322b; mountain, IV-282b; special uses, IV-461a; underground, IV-473a; *see also* railway locomotives
 Rain III-360b
 Rainbow III-362b
 rainfall III-91b; rain-gauge, VIII-291b
 rain forests III-169a
 rain-makers, in primitive communities, I-288b; *illus.* I-336
 Raising Agents, in cooking, XI-375a
 raisins VI-208a; VII-216b; raisin oil, VII-321b
 Raleigh, Sir Walter (c. 1552-1618), V-379b; *Ark Royal*, IV-31b
 ram, sheep, VI-403b, 406b
 Rāmāyana, Hindu epic, XII-133b
 Rambler, The, periodical, XII-336a
 rambutan, tropical fruit, VI-465a
 ramie (rhea, chinagrass), fibre crop, VI-152b
 Ramesses (c. 1350-1115 B.C.), kings of Egypt, V-381b
 Ramillies, battle of (1706), V-295a
 ramjet, aircraft engine, IV-9b
 Ranelagh Gardens, of 18th-cent. London, IX-359a
 Range-finders VIII-367a
 Rangers, senior Girl Guides, IX-253b
 ranging rod, surveying instrument, VIII-428a

- Rangoon**, port, Burma, III-364a; *map* III-229
- Ranjitsinhji**, cricketer, 20th cent., IX-162a
- ranks**: army, X-42a; navy, X-382b; R.A.F., X-378a
- ranunculaceae**, flower family, Index p. 64
- rape**, cabbage, VI-64a; rape oil, VI-301a
- Raphael**, archangel, I-25a
- Raphael** (1483-1520), Italian painter, V-382b; XII-85b; drawings, XII-111a, 113a, 114a
- Raphael Cartoons** XII-462b, 29a; *illus.* I-320
- rapier**, sword, X-490a
- rash**, skin, XI-408a
- Rashi** (1040-1105), Jewish commentator on Bible, I-276b
- Raspberries, Loganberries, and Blackberries**, VI-372a; propagation, VI-183a
- raspberry beetle** VI-53a
- Rasputin**, Gregory Efimovich (c. 1871-1916), Russian adventurer at the imperial court, I-415b
- Ras-Shamra** (Ugarit), city-state of ancient Syria, I-363b-364b
- Rat** II-340b; length of life, II-187b; farm pest, VI-474b; household pest, XI-229a; on ships, X-357b
- Ratchet** VIII-368a
- ratel**, badger, II-29a
- Rates**, local taxation, X-359, 245a
- Rates of Exchange** VII-371a; devaluation, VII-463b; table of world currencies, Index p. 118
- Rationalism** I-393a; philosophy of Descartes, V-134a; Spinoza, V-424b
- Rationing** X-360a
- ratites**, bird family, II-301b
- rat-tail fish** II-115a
- rattle**, plant, Index p. 64
- rattlesnake** II-447a
- Ravel**, Maurice (1875-1937), French composer, XII-62b
- raven**, bird, II-108a
- Ravenna**, Italy, early medieval art of, XII-214a, 121a
- Ravenscroft**, George (1618-81), British merchant, VII-206b
- ravine**, valley, III-461a
- ravioli**, Italian dish, XI-349b
- ray**, fish, II-385b; electric (torpedo), II-133b
- Rayon** VII-372a
- razor-bill**, bird, II-26a
- razor blades** VII-153a
- Razor-shell** II-341a
- Re**, Egyptian sun-god, I-198a, 159a
- reactor**, atomic, VIII-315b
- Reade**, Charles (1814-84), British novelist, V-158b
- readers, printers'**, IV-50a; publishers', IV-48b
- Reading University** X-346b
- real accounts**, book-keeping, VII-50b
- real property**, in law, X-345a
- reamer**, drilling machine, VIII-113a
- reaping and binding machines**, harvesting, VI-223b, 6a
- Reason**, Age of, XII-164b; Augustan Age in England, XII-32b
- reasoning power of animals** II-222b
- rebec**, ancient string instrument, IX-340a; *illus.* IX-339
- Rebecca and Eureka**, radar navigation device, IV-293b
- Rebekah**, wife of Isaac, Old Testament, Index p. 130b
- rebirth**, religious conception, I-252b; Hindu reincarnation, I-226b
- rebus**, word puzzle, IX-394b
- receipts**, for payments, VII-251b
- receiving order**, in bankruptcy proceedings, X-50b
- Recipes and Cookery Books** XI-375b
- reciprocating engine** VIII-229b
- recitative**, in opera, XII-426a; IX-349a
- recoilless gun** X-46b
- reconnaissance flying** X-14b
- recorder**, judicial officer, X-358b
- Recorders**, wood-wind instruments, IX-400a
- rectangle**, four-sided figure, VIII-187b
- rectifier**, distillation apparatus, VII-162a
- Rectifier**, of electric current, VIII-368b; diode rectifier, VIII-447a
- rectum** XI-102a; *diag.* XI-102
- red admiral butterfly** II-444a
- red bug** (cotton-stainer) II-59a
- red cabbage** VI-67a; colouring, II-319b
- red cedar** (thuya), tree, VI-460b
- Red Cross** X-361a
- red currants** VI-109a
- red deer** II-117a; IX-66a
- Rediffusion**, of radio programmes, IV-355b
- Red Indians**, *see* American Indians
- redpoll**, lesser, bird, II-145b
- red poll cattle** VI-79a; *illus.* VI, opp. p. 80
- Red River** (Fleuve Rouge), Indo-China, III-232b; *map* III-87
- Red Sea** III-365a; *map* III-17
- redshank**, bird, II-452a
- red spider mites**, pests, VI-290b
- red squirrel** II-404b
- Redstart** (redtail), bird, II-341b, 13b
- red tai**, fish, II-373a
- redtail** (redstart), bird, II-341b, 13b
- red-water fever**, cattle disease, VI-23a
- redwing**, bird, II-425b-426b
- Redwing sailing craft** IX-183b
- redwoods** (sequoias), trees, VI-460a; II-96b
- reed bunting**, bird, II-146a
- reedling**, bird, II-432a
- Red Organs** IX-400b
- reed-pheasant** II-432a
- reeve**, royal agent, X-246b
- Reference Books** IV-356b; encyclopaedias, XII-129a
- Referendum**, on public opinion, X-362a
- Refining** VII-374a; gold, VII-212b; oil, VII-317a; silver, VII-397a; sugar, VII-421a
- reflection** III-475a; light, III-258b; sound, VIII-1b
- Reflections on the Revolution in France**, Burke, V-63a, 345b
- reflexes** XI-324b, 371b; in animals, II-223b
- Reform Act** (1832) X-145a; (1867) X-145a; V-140b; (1884) X-145b; V-192b
- Reformation**, of Christian Church, I-395a; V-285b; *see also* Protestant Churches
- Reformation Parliament** V-219b
- reformatory schools** X-60b
- Reformed Churches**, *see* Protestant Churches
- refraction**: of waves, III-475b; light, III-258b
- refractories**, heat-resisting materials, VIII-160b
- refrigeration**, cold storage, VII-124a; refrigerated lorries, IV-278b; ships, IV-406a; trains, IV-461b
- Refrigerator** VIII-369b; XI-377a
- Refugees** X-362b
- Refuse Disposal** X-364a; sewage, VIII-384a; street cleansing, X-434a
- 'regal' organ** IX-401a
- regattas**: rowing, IX-75b; sailing, IX-424a
- Regency** X-365a
- Regency Architecture** XII-372a; balconies, XI-17b
- Regent's Park**, London, V-330b
- regimen of river**, pattern of flow, III-373a
- Regiments** X-366a; bands, IX-317a; colours, IV-149b
- registered post** IV-328b
- Registrar-General**, Somerset House, X-483a
- Registrar of Joint Stock Companies** VII-267a
- registration**, of births, deaths, marriages X-482b
- regulators**, heat, VIII-16a
- Rehabilitation**, of disabled people, X-368a
- 'Reign of Terror'**, French Revolution, X-169b; V-389a
- reincarnation**, Hindu belief, I-226b, 223b; *see also* rebirth
- Reindeer** II-342b; IV-43a
- Reith**, J. C. W., Baron (1889-), Director-General of B.B.C., IV-68a
- Relationship** XI-378a
- Relativity**, theory of physics, III-366a, 26b
- Relay Races** IX-401b
- relay**, electrical apparatus, VIII-265b
- relief printing** VII-357b
- Religion** I-396a; God, I-196b; heaven, I-214b; hell, I-222a; mysticism, I-330b; priest, I-384b; ritual, I-404b; sacrifice, I-422b; Satan, I-428b
- religion**, Christian, *see* Christianity; Christian Church
- religion**, primitive, I-396a, 336a, 27b
- Religion, Prehistoric**, I-399a
- reliquaries** (miniature shrines) XII-419a
- relishes** XI-75a
- Rembrandt Van Rijn** (1606-69), Dutch painter, V-383b; XII-350b, 114b; *illus.* XII, opp. p. 352; etchings, XII-139b; *illus.* XII-140; Mauritshuis collection, III-211a
- remittances**, payments, VII-334a
- Remora** (sucking fish) II-343a; VI-470b
- Remus**, character in Roman legend, Index p. 142b

Renaissance I-399b; influence on Reformation, I-395a; in Italian Art, XII-215a; translations, XII-460b
 Rennie, John (1761-1821), engineer, IV-61b; VIII-107a
 Renoir, Auguste (1841-1919), French painter, XII-355a, 205a; *illus.* XII, opp. p. 256
 rent, in family budget, XI-153b
 Rent Control X-369a
 Repertory Theatre IX-402b
 Reporter IV-358b
 repoussé, metal work, VII-209a
 Representatives, commercial, VII-374a
 Representatives, House of, U.S.A., X-20b
 Reproduction in Animals II-344a; heredity, II-203b
 Reproduction in Plants II-345a; fertilization, VI-150b
 Reproductive System, human, XI-379b, 6a
 Reptiles II-348a; age of, I-165b; III-352a
 Repton, Humphry (1752-1818), landscape designer, XII-233b; V-330b
 Republic X-369a
 Republicans, U.S. political party, X-332a
 reredos, altar screen, XII-9a
 Research in Agriculture VI-373b
 reservations, American-Indian, I-9b
 reservoir VIII-65a; water-supply, VIII-478b
 resins VII-218a; glues, VII-347a; in plastics industry, VII-341b; waterproofing, VII-466b
 Resistance Movement, of Second World War, X-178b
 resistance, electric, VIII-7a
 Resolution, ship, V-105b
 resonance, mechanical vibration, VIII-474a
 resonance, sound, III-409a; VIII-2b
 Respiration in Animals II-348b; in humans, XI-381a; in plants, II-349b
 Responsions, examination, X-478b
 restaurants VII-87b
 Restoration, of Charles II (1660), V-84a, 114b; IX-285a
 Restoration Drama XII-373b; acting, IX-6b; theatre, IX-462b
 restoring, of paintings, XII-327b
 Resurrection, of Jesus Christ, I-120b, 122b
 Retail Trading VII-375b; co-operative, VII-128b; grocers, VII-216a
 Retief, Piet, Boer leader of 19th cent., I-442a
 reticule, handbag, XI-211a
 retina of eye, in animals, II-381b, 382a; in human beings, XI-151a
 retorts, in gas manufacture, VIII-177b
 retriever, dog, IX-194a, 199b
 retting, of flax, VII-269a
 returning officers, of parliamentary constituencies, X-146a
 Reuben, son of Jacob, Old Testament, Index p. 130b
 Reuter's Agency, news, IV-297b, 315a
 Revenge, H.M.S., IV-361a
 reverberation of sound VIII-2a
 reversion, plant disease, VI-109b

reviews, literary, XII-336b; IV-50b
 Revised Version, of Bible, XII-460a
 Revolution X-370b
 Revolution of 1688 X-372a; Bill of Rights, X-53b
 revolver IX-376b; *illus.* X-490
 revue, entertainment, IX-336a
 Reynolds, Sir Joshua (1723-92), English painter, V-385a; XII-351b; *illus.* XII, opp. p. 48
 Reynolds, Osborne (1842-1912), British engineer, VIII-218a
 Reynolds number, aerodynamics, VIII-218a
 Rhea (Cybele), Greek mythol., I-200b; Index p. 142b
 rhea, bird, II-303a; hunting, IX-295a
 rheology (study of the effect of force on materials) VIII-418a
 Rhetoric XII-374b, 188a
 rhetorical question XII-148b
 rheumatic fever XI-325b
 rheumatism XI-32a, 345a
 Rhine, river, III-368b, 50a; *map* III-160
 Rhineland, W. Germany, III-185b; *map* III-160; German occupation, 1936, V-224b
 Rhinoceros, mammal, II-351b; prehistoric, III-353a
 rhizome, underground stem, II-411a; disease of, VI-253a
 rhizopoda, single-celled animals, II-334b
 Rhode Island Red, poultry, VI-24a; *illus.* VI, opp. p. 336
 Rhodes, Cecil John (1853-1902), business pioneer and colonial administrator, V-386a; code letter, *illus.* IV-108
 Rhodes, I., Mediterranean Sea, III-132a-133a; I-204a
 Rhodes, Wilfrid, cricketer, IX-162b
 Rhodes House, Oxford, IV-47b
 Rhodes scholar, Oxford, X-306b
 Rhodesia, East Africa, III-369a
 Rhodesians I-403a
 Rhodesia, Government of, X-373a
 rhododendrons VI-1323b; family, Index p. 66
 Rhodope Mts., S. Europe, III-494b, 63a; *map* III-160
 rhombus, four-sided figure, VIII-187b
 Rhondda valley, S. Wales, III-470b; I-76b
 Rhône, river, S.E. France, III-173b
 Rhubarb VI-376a; II-166a; root, II-356b
 'rhumb' lines, on mariners' charts, IV-92b
 rhyme XII-469b; rhyme-royal, XII-471a
 rhythm, of music, XII-255b, 283a; jazz, XII-228a; national rhythms, XII-156b; primitive rhythm, XII-364b; syncopation, XII-447b
 rhythm, of poetry, XII-468a
 Ribbon-fish II-352b
 Ribera, Jusepe (1591-1656), Spanish painter, XII-432a
 ribs XI-31a, 382a
 Ricardo, David (1772-1823), British economist, VII-462a
 Rice VI-377a; *illus.* VI, opp. p. 416

Rice Dishes XI-382b
 rice-paper XI-384a
 Richard I (Coeur de Lion, 1157-99), King of England, I-132b; X-336a; V-400a
 Richard II (1367-1400), King of England, V-453b; *illus.* X-272
 Richard, Paul, airman of First World War, X-337a
 Richard, Timothy (1845-1919), Baptist missionary, I-64b
 Richardson, Samuel (1689-1761), English novelist, XII-298b, 300a
 Richebourg, dwarf, I-149a
 Richelieu, Armand Jean, Cardinal (1585-1642), prime minister of France, V-387b
 Richmond Park, Surrey, IX-360a
 rickets, disease, XI-97a, 476b, 344b
 ricki-ticki (grey mongoose), mammal, II-272b
 Rickshaw, Chinese carriage, IV-361b
 Riddles IX-403b
 ridgeways, Stone Age tracks, IV-367b
 Riding IX-405a; gymkhanas, IX-268b
 riding-officers, Excise men, X-417b
 riding rhyme XII-470b
 Ridley, Nicholas (c. 1500-55), Bishop of London, V-110b
 Rifle Brigade X-366b; cap badge *illus.* X-366a
 Rifle Shooting IX-407b
 rifles IX-437b, 409a; X-44b
 Rif Mountains, Morocco, III-302a
 rift valleys III-376a
 Riga, port, Latvia, III-254b; I-286b; *map* III-459
 rigging, boats, IX-422b
 Rightboys, Irish secret society, X-407a
 Right of Way IV-362a
 Rights, Bill of (1689), X-53b
 Rights of Man, Thomas Paine, V-345b
 Rig-Veda, Hindu sacred writings, I-419b
 Rilke, Rainer Maria (1875-1926), Austrian poet, XII-174a
 Rimbaud, Jean-Arthur (1854-91), French poet, V-388b; XII-165a
 rime, frost, III-117a
 Rimmon, Assyrian and Babylonian god, Index p. 130b
 rinderpest (cattle-plague) VI-20b
 ring-dove (wood pigeon) II-321a
 ring-frame, spinning-machine, VII-140b
 ringhals, cobra, snake, II-91b
 ringlet butterfly II-56a
 ring-necked snake II-184a
 Ring of the Nibelung, The, Wagner, XII-376a
 Ringold, 13th-cent. Lithuanian prince, I-286b
 ring-ouzel, thrush, II-427a
 rings, jewellery, VII-254b
 ringworm, skin disease, VI-21b
 Rio de Janeiro, Brazil, III-371a; *map* III-415
 Rio Grande, river, Mexico/U.S.A., III-287a, 381a; *map* III-288
 Rio de Oro, W. Africa; *map* III-5
 Riot Act (1714) X-374b
 Riot and Unlawful Assembly X-373b
 risotto, rice dish, XI-350a, 383b
 Ritual I-404b; ritual dances, IX-173a, 230b; of Greeks, IX-265a

- Rivera, Diego (1886– , Mexican painter, XII-12a
 River Boards Act (1848) X-113a
 River Navigation IV-362a
 River Police X-375a
 Rivers III-372a; Conservancy Boards, X-113a; dredging, IV-130a; flood control, VIII-164b; locks and weirs, IV-237a; surveying, VIII-221b
 Riveting VIII-371a
 Riviera, French, III-174b; IX-426a
 Riza, Shah of Persia (1925-42), I-356b; III-433b
 Rizzio, David (1533-66), secretary to Mary Queen of Scots, V-298b
 roach, fish, II-74a; fishing, IX-17a
 road, rule of the, IV-380a
 Road Building VIII-372a
 road haulage IV-277a; road-rail vehicles, IV-279a
 Road Service Station IV-372a
 road-signs IV-373a
 roads: Alaskan Highway, IV-21b; American trails, IV-28a; Appian Way, IV-29b; Bath Road, IV-40b; Brighton Road, IV-66a; Burma Road, IV-71b; Dover Road, IV-129b; Golden Road, IV-174a; Pilgrim's Way, IV-315b
 Roads, British, IV-367a; classification, IV-369b; effects of climate, IV-100b; repairs, X-432b
 Roads, History of, IV-365a
 Roads, Modern, IV-369a; effects of climate, IV-100b; drainage, VIII-375a; surfaces, VIII-375a
 Road Traffic Control IV-372b
 Road Transport Engines IV-373b
 'Roaring Forties', winds, III-489a
 Roasting XI-384a
 robbers IV-190b
 Robbia, della, 15th-cent. Italian family of terracotta sculptors, XII-450b
 Roberts, Frederick Sleight (1st Earl, 1832-1914), British soldier, X-424a
 Robespierre, Maximilien (1758-94), leader in French Revolution, V-389a
 Robin II-353a; 365b; blue robin (blue-bird), II-50b; Index p. 144
 Robin Hood (c. 14th cent.) V-389b; I-333a
 Robinson, John (c. 1576-1625), Puritan leader, I-129b
 Robinson, William, 20th-cent. English gardener, VI-197a
 Robinson Crusoe, Daniel Defoe, V-131a, b, 120a
 Rob Roy canoe IV-85b
 Rochdale, Lancs., cotton industry, VII-142b
 Rochdale Pioneers, Co-operative traders, VII-128a
 rock-climbing IX-330a
 Rock-crystal III-374b
 Rockefeller Centre, New York, XII-423a
 'Rocket', railway locomotive, V-428a; IV-348b
 Rocket Propulsion VIII-376a; aircraft auxiliaries, IV-10a, 12b; inter-planetary travel, IV-209a
 rocket signals IV-233b
 rockets, weapons, X-178b; rocket-firing aircraft, X-17a, 46a
 Rock Formation III-374b
 Rock-garden VI-378b
 Rock-garden Plants VI-380b
 rockling, fish, II-94a
 rock-rose VI-165a
 Rock-salmon II-353b, 10b
 Rocks III-377a; blasting, VIII-28a; drilling, VIII-302a; marble, VII-277a; pervious, III-483a; slate, VII-398a; weathering, III-125b
 rock-salt III-390b, 325a
 Rocky Mountains, North America, III-380a; map III-318; passes, IV-281a
 Rococo Art XII-376b, 161b; furniture, XI-195a
 rod, land measurement, VI-10a
 Rodent II-354a
 rodent officer VI-474b
 Rodeo, cowboy gathering, North America, IX-410a
 Roderic, 8th-cent. Gothic king, I-327a
 Rodin, Auguste (1840-1917), French sculptor, XII-52b
 Rodney, George Brydges, Baron (1719-92), V-390a
 Rodney, H.M.S., battleship, X-295b
 roe deer II-118a
 Roemer, Olaus (1644-1710), Danish astronomer, III-258a
 Rogation-tide, in Christian Church, I-177a; IX-284a
 Rogues and Vagabonds X-375b
 Roland, legendary Frankish knight, 8th cent., XII-62b, 383a; IV-414b
 roller bearings VIII-22a
 Roller Skating IX-410b
 rolling, of metals, VIII-284a; rolling mill, iron, VIII-238a; tinplate, VIII-458b
 rolling-stock, railway, VIII-364a
 Rolls, Master of the, judge, X-30a
 Roman (Latin) alphabet IV-24a; XII-240b
 Roman architecture XII-379a, 316a; ornament, *illus.* XII-320
 Roman Art XII-378b, 83a; ivory carving, XII-221b; sculpture, XII-381a, 440b
 Roman Baths IX-411a; XII-379b
 Roman Britain I-77a; art, XII-46b; Boadicea, V-48a; earthworks, I-151a; Hadrian's Wall, V-205a; mining, VII-297a; roads, IV-376b, 40b, 129b; villas, XI-239a
 Roman Catholic Church I-407a; apostolic succession, I-118a; friars, I-187a; influence on art, XII-217b-218b; monastic orders, I-324b; music, XII-397a, 331b; priesthood, I-385b; sacraments, I-417a; the Reformation, I-395a; Counter-Reformation, V-285a; Vatican, XII-462a
 Romance Languages IV-375a
 Romance Literature XII-383a
 Romance of the Rose, Guillaume de Lorris, XII-384a, 7b; V-88a
 romance-six, metre of poetry, XII-471a
 Roman Civilization I-408b
 Roman emperors: Augustus, V-24b; Constantine, V-104a; Diocletian, V-138b; Hadrian, V-205a; Justinian, V-253b; Marcus Aurelius, V-292a; Nero, V-334a; Trajan, V-450a
 Roman Empire I-411b; IV-218a, b; X-103a; army, X-227b, 74a; Christianity in, V-104b; collapse of, I-412b; III-382b; roads, IV-375b; trade, VII-443b; *map*, Index p. 53
 Romanesque Art XII-384b; English (Norman), XII-80a, 48a
 Roman gods I-201b; Index p. 137
 Romani (gypsies) I-211b
 Roman law X-235a, 221b
 Roman (Latin) literature XII-239a
 Roman numerals IV-114a
 Roman Roads IV-375b; Bath Road, IV-40b; Dover Road, IV-129b
 Roman script IV-180a; XII-240b
 Romantic Movement XII-388a, 165a, 2b; music, XII-293b, 426b, 390b; poetry, XII-250a
 Roman type, printing, VII-362a
 Roman villas XI-239a; central heating, VIII-198b; gardens, VI-194b
 Romany Rye, *The*, George Borrow, V-52a
 Rome, Italy, III-381a; *map* III-160; as city state, X-87b; Colosseum, XII-88a; St. Peter's Cathedral, XII-401b; streets, IV-437b; Trajan's column, XII-458a; *see also* Roman civilization
 Romney, George (1734-1802), English painter, *illus.* XII-86
 Romulus, character in Roman legend, Index p. 142b
 rondeau (rondel, roundel), verse-form, XII-471b
 rondo form, music, XII-285a, 424b
 Ronsard, Pierre de (1524-85), French poet, V-391a
 Röntgen, Wilhelm Konrad (1845-1923), German physicist, VIII-493a
 Röntgen rays (X-rays) VIII-493a; XI-374a, 42a
 Rood Screens XII-390b
 Roofs XI-384b; VIII-44a; hammer-beam construction *illus.* XII-180; VII-81; tiles, VII-58b; vaulting, XII-463a
 Rooke, Sir George (1650-1709), British admiral, III-190b
 rooks II-108b; as farm pests, VI-475b
 Rooms, History of, XI-387a
 Roosevelt, Franklin Delano (1882-1945), President of U.S.A., V-391a
 Root Crops VI-383a; as animal food, VI-169a; tropical, VI-467a
 Root Pressure II-354b
 Roots II-355a; root nodules, II-292b
 rootstock, used in plant grafting, VI-181b, 182a
 Rope-making VII-377a
 Roper, William (1496-1578), English biographer, XII-43b; V-320b
 rope railways IV-283a
 rope trick, Indian, IX-151b
 rope-walker (funambulist) IX-1b
 rosaceae, flower family, Index p. 65
 Rosas, Juan Manuel de (1793-1877), Argentine dictator, I-34b
 rose-fish II-367a
 rose of Jericho II-120a; *illus.* II-119
 Roses: wild, II-357a; cultivated, VI-385a; fruit (hips), II-166b; family, Index p. 65

- Roses, Wars of the (1455–85), X–153a
 Rosetta Stone, Egyptian antiquity, IV–188a, *illus.* IV–187
 rosewood VII–224b; VI–458a
 rosin and resin VII–219a
 Ross, Sir John (1777–1856), Greenland explorer, III–206b
 Ross, Sir William (1794–1860), English miniature painter, XII–260b
 Rossetti, Christina (1830–94), English poet, XII–360b
 Rossetti, Dante Gabriel (1828–82), painter and poet, XII–360a
 Rossini, Gioacchino Antonio (1792–1868), Italian composer, XII–311b
 rotary press, newspaper printing, IV–336a
 Rotation of Crops VI–388a, 5b
 Rothamsted Experimental Station, Hertfordshire, VI–374, 36a, 37a
 Rothschild Family, bankers, V–392b; VII–290b
 rotogravure, *see* photogravure
 rotor, rotating part of machine, VIII–409a, 230b
 Rotorcraft, aircraft, IV–377a
 Roturua geysers, Auckland, New Zealand, III–189a
 rotten borough X–145b
 Rotterdam, *port*, Holland, III–219b
 Rouault, Georges (1871–), French painter, XII–144b, 142a
 roulette, gambling game, IX–115b
 Roumania III–383b; *map* III–160
 Roumanians I–413a; language, IV–375a; national dress, XI–150b
 roundel (rondeau, rondel), verse-form, XII–471b
 Rounders, ball game, IX–411b
 Roundheads, in Civil Wars, X–97a; XI–207a
 rounds, songs, XII–427a
 roundworms VI–316a
 Rousseau, Jean Jacques (1712–78), French philosopher, V–393b
 roussette, dogfish, II–385a
 rowan ash, tree, II–357a; fruit, II–169b
 Rowing IX–412a
 Rowlandson, Thomas (1756–1827), British artist, XII–59a, 166b; *illus.* VII–369
 Royal Academy V–385b; XII–2a
 Royal Academy of Music V–207a
 Royal Agricultural Society of England VI–12b, 13b
 Royal Air Force X–376b; training, X–10a; uniform, X–473a
 Royal Air Force Regiment X–377b
 Royal Armoured Corps X–42b
 Royal Army Service Corps X–42b
 Royal Artillery, regiment, X–366a
 Royal Ascot, horse-racing event, IX–292a, 290a
 Royal Automobile Club IV–373a
 Royal Canadian North-west Mounted Police I–94a; X–329a
 Royal Charles, English flagship, V–134a
 Royal Commission X–109a
 Royal Counties Show VI–13b
 Royal East Kent Regiment X–366b
 Royal Festival Hall, London, XII–370a; *illus.* VII–184; acoustics, VIII–399b; heating, VIII–202a, 201a
 Royal Flying Corps X–377a
 Royal Holloway College, London, X–255a
 Royal Horticultural Society VI–14a, 16a, 324b
 Royal Household and Residences X–378b
 Royalists, of Civil Wars, X–97a
 Royal Marines X–258a
 Royal Marriages Act (1772) X–120b
 Royal Mile, Edinburgh, III–148b
 Royal Military Academy, Sandhurst, X–43a
 Royal Mint X–271a
 Royal Naval College: Dartmouth, X–296a; Greenwich, X–297a
 Royal Navy X–381a; naval aviation, X–291b; training, X–296a; uniform, X–472b
 Royal Oak, *H.M.S.*, battleship, X–293b
 Royal Observatory, Greenwich, IV–289a; III–24b
 Royal Observer Corps X–385a
 Royal Ocean Racing Club (R.O.R.C.) IX–346a–347a
 Royal Philharmonic Society IX–147a
 royal prerogative X–122a
 Royal Scots Regiment, cap badge, *illus.* X–366
 Royal Show, The, VI–12b, 13b
 Royal Society, scientific academy, XII–1b; V–491b
 Royal Society of Arts XII–210b
 Royal Sovereign, *H.M.S.*, battleship, X–459a
 Royal Standard IV–148a
 royal tennis (real tennis) IX–459b
 Royalties VII–379b; authors', IV–48b
 royal train IV–461a
 Royal Ulster Constabulary X–321a, 326a
 Royal Welch Fusiliers X–366b
 R.S.F.S.R. (Russian Soviet Federative Socialist Republic) III–384b
 R.S.P.C.A. (Royal Society for the Prevention of Cruelty to Animals) VI–453b
Rubāyāt of Omar Khayyām, The, V–259a; XII–460b
 Rubber VI–390a; plant family, Index p. 70
 Rubber Manufacture VII–380a
 rubberizing VII–465b
 rubber-plating VIII–142a
 rubellite, stone, III–445a
 Rubens, Peter Paul (1577–1640), Flemish painter, V–395a; XII–152a; school of, XII–410b, 153a
 Rubicon, crossing the, V–252b
 Rublev, Andrej (1370–1430), Russian painter, XII, opp. p. 400
 rubraceae, plant family, Index p. 67
 Ruby III–384a; XI–267a; *illus.* XI, opp. p. 224
 ruff, bird, II–452a; *illus.* II–14
 ruffs XI–87b
 Rugby fives, ball game, IX–228b
 Rugby Football IX–414b; Rugby Union, IX–417a
 Rugby Football, History of, IX–416b
 Rugby League Football IX–418a
 Ruggiero, 16th-cent. astrologer, XI–354a
 rugs XI–44a; making, VII–84a
 Ruhr, *region*, W. Germany, III–186a; VII–118a
 Ruisdael, Jacob (c. 1628–82), Dutch painter, XII–117a, 114b
 Rule of the Road IV–380a
 rules, monastic, I–325a; V–38b
 rum, spirit, VI–436a
 rumba, dance, IX–51b
 Ruminants (animals which chew the cud) II–358a; VI–147b
 Rump Parliament (1648–53) V–112b, 114a
 Runes (ancient Teutonic alphabet) IV–24b; *illus.* IV–169b
 running IX–37b, 31a
 runways, for aircraft, IV–17b
 Rupert, Prince (1619–82), V–396a; founding of Hudson's Bay Company, VII–233a
 rupture XI–222b
 Rural Crafts VI–391b
 rural dean, Church of England I–127b
 rural district council X–242b
 Ruric, 9th-cent. Viking leader, I–460b
 rusalka, fairy, I–306b
 rushes VI–480a; Index p. 69
 Ruskin, John (1819–1900), writer, artist, and social preacher, V–397a; XII–361a, 137b
 Ruskin College, Oxford, X–4b
 rusks XI–25a
 Russell, Francis, Earl of Bedford (1593–1641), VIII–159b
 Russell, Dr. Richard (d. 1771), physician, IX–425b
 Russia, *see* U.S.S.R., Russians
 Russia Company VII–94b
 Russian Art XII–392b; the Kremlin, XII–230b; *see also* Byzantine art
 Russian ballet IX–48a
 Russian Canals IV–382a
 Russian Church I–348b
 Russian Constitution X–385b; local government, X–253a
 Russian language IV–420a
 Russian Literature XII–395a, 417b
 Russian Revolution (1917) X–387a, 110b; I–415b; Lenin, V–269b; Stalin, V–424b; Trotsky, V–450b
 Russian Soviet Federative Socialist Republic (R.S.F.S.R.) III–384b
 Russians I–413b; *see also* U.S.S.R.
 Russo-Japanese War X–106b; I–415b
 rusting, of metal, VIII–96b
 Ruth, Old Testament, Index p. 130b; *Book of Ruth*, I–70a
 Rutherford, Ernest, Baron (1871–1937), New Zealand physicist, V–398b; III–36a
 Ryder Cup, golf, IX–261b
 Rye, cereal, VI–394b; bread, XI–48b
 Rymer, Thomas (1641–1713), collection of historical records, XII–193a
 Ryswick, treaty of (1697), V–284b
 Saar, *region*, W. Europe, III–186b
 Sabbath day, in Jewish religion, I–280a
 sable: weasel, II–464a; fur, VII–201a; VI–189b
 sabre, sword, *illus.* X–489
 saccharin, sweetening, XI–430a
 sackbut, musical instrument, IX–340b

Sacrament I-417a, 375a
Sacred Animals I-418a; Egyptian beetles, II-365a; cats, IX-117a
Sacred Books I-419b
Sacred Music XII-397a; passion music, XII-331b; *see also* cantata; oratorio
Sacrifice I-422b
saddler VI-393a
Sadducees, Jewish sect, I-271a; Index p. 130b
Sadler's Wells Ballet IX-49a
safari, hunting expedition, IX-66b
Safavid dynasty, of Persia, XII-340a
safety: air safety rules, IV-98a; road safety, IV-372b
Safety Devices, industry, VIII-378a; X-207a
Safety Lamps VIII-379b; VII-116a
Safety at Sea IV-384a; buoyancy, VIII-48b
saffron, meadow (autumn crocus), II-246a; *illus.* VI-60a
Saga, Icelandic tale, XII-398b; I-424a
sage, herb, VI-233b, 234a; family, Index p. 68
sages, Chinese, I-106b, 107a
sago palm VI-314a; as food, XI-49a
Sahara Desert III-388a, 4a; mirage, III-292a; travel, IV-121b
Saharan Peoples I-424b
Sailing IV-385a; as sport, IX-419a
Sailing Boats IX-421b; building, VIII-29a
Sailing Regattas IX-424a
Sailing Ships IV-387a, 398b; dhow, IV-123a; felucca, IV-146a; junk, IV-214a
sailing ships: *Ark Royal*, IV-31b; *Cutty Sark*, IV-118a; *Endeavour*, IV-136b; *Golden Hind*, IV-173a; *Great Harry*, IV-176b; *Great Michael*, IV-177a; *Mayflower*, IV-261b; *Revenge*, IV-361a; *Sovereign of the Seas*, IV-423b; *Santa Maria*, IV-393b; *Victory*, IV-475b
sailors: merchant navy, IV-409a, 460a; royal navy, X-382b, 296a
sailplane (glider) IX-257a
sainfoin, plant, VI-263b; Index p. 68
Saint I-429a; chief Christian saints and their symbols, Index p. 133; *see also under proper names*, e.g. David, Patrick
St. Andrews University X-389b
St. Bartholomew's Eve, massacre of (1572), I-232b; V-220b
St. Bartholomew's Hospital, London, X-188b; V-211b
St. Bernard's Pass, over the Alps, IX-331a
St. David's Cathedral, Wales, V-128a
St. Elmo's Fire, electrical discharge, III-153a
St. George's Hospital, London, X-189b
St. Gothard Pass, over the Alps, III-11a
St. Helena I., Atlantic Ocean, III-388b
St. James's Palace, London, X-380a
St. James's Park, London, IX-359a
St. John of Jerusalem, Knights of (Hospitaliers), I-282a; III-133a
St. John's, Newfoundland, Canada, III-311a; *map* III-69
St. Kitts-Nevis, Is., West Indies, III-484b, 485b

St. Lawrence, river, Canada, III-389a; VIII-76a; *map* III-69
St. Lazarus, Knights of, X-188b
St. Leger, horse-race, IX-292a, 290b
St. Matthew Passion, J. S. Bach, V-27b, 28b
St. Michael and St. George, Order of, X-187b
St. Nazaire, port, W. France, III-175b; commando attack in Second World War, X-108b
St. Patrick V-351b; Order of, X-187a
St. Paul's Cathedral, London, XII-400a
St. Petersburg (Leningrad), U.S.S.R., III-255a
St. Peter's Cathedral, Rome, XII-401b; *illus.* III-382; high-altar, *illus.* V-43
Saints, battle of the (1782), V-390a
St. Sophia, Istanbul, XII-402a
St. Swithin's Day III-362a
St. Valentine's Day IX-284a
St. Vincent, I., West Indies, III-484b-485b
St. Vitus's dance XI-325b
Sakais, peoples of Malaya, I-291a
Salad Crops VI-396a
salad dressings XI-391b
Saladin (1137-93), Sultan of Syria and Egypt, V-400a
Salads XI-391a
Salamanca, battle of (1812), V-477b
Salamander, amphibian animal, II-359a, 7b; legendary creature, I-168b
Salamis, battle of (480 B.C.), X-394b; V-445a
sal-ammoniac (ammonium chloride), in batteries, VIII-20a
Salem (Jerusalem) III-245b
sales, trading, VII-375b; advertising, VII-6b; agent, VII-10a; auction, VII-22b; commission, VII-126a; market research, VII-282a; sales manager, VII-72a; turnover, VII-457b
Salic law X-120b
saline waters IX-73b
Salisbury, Robert Cecil, Marquis (1830-1903), V-77b
Salisbury, Southern Rhodesia, I-403b; III-369b; *map* III-5
Salisbury cathedral XII-80a; *illus.* XII, opp. p. 17
Salisbury Plain, Wilts., IV-367b; III-196a; Stonehenge, I-455b
saliva XI-100b
Sallust (Gaius Sallustius Crispus, 86-34 B.C.) XII-239b
Salmon II-360a; salmon ladder, VIII-221a
Salmon Fishing, industry, VI-398b; as sport, IX-18a
Salome, wife of Zebedee, New Testament, Index p. 130b
salons, literary gatherings, XII-164b; XI-148b
Salote, Queen of Tonga, XI-297a
Salsify, plant, VI-399b; II-284b
Salt III-390a; as currency, VII-354b; condiment, XI-74a; industrial uses, VII-100b, 14a; manufacture, VII-382a; plant food, II-294b; salt-plug, III-325b; standing-salt, XI-444a

Saltash Bridge, Devon/Cornwall, IV-64b
salting and smoking XI-181a, 182a
Salt Lake, Utah, U.S.A., III-202a; *map* III-451
Salt Manufacture VII-382a
salt marsh plants II-375a
saltpetre, mineral, VII-6a; in fireworks, IX-226b-228a
Salt Sea (Dead Sea), Palestine, III-122a
saluki, dog, IX-191a
salute, naval, X-385a
Salvador, El, republic, Central America, III-78a; people, I-100b
salvage, refuse, X-364b
Salvage (of wrecks and disabled ships) IV-391a; salvage tugs, IV-467a; ship repairs, VIII-392a
salvarsan, drug, XI-126b
Salvation Army V-50b
Salyr, Siberian peoples, I-447a
Satzburg Festival IV-341b
samara, winged fruit, II-167a
Samaria, region, Israel, III-332b; ancient state, I-218b; Index p. 130b
Samarkand, Uzbekikskaya, U.S.S.R., III-460b; *map* III-459
Samnites, people of ancient Italy, I-409a
Samoa, Is., Pacific Ocean III-330b, 331a; *map* III-323; Polynesians, I-370b
Samoyedes, Siberian peoples, I-438b; languages, IV-148a; dogs, IV-43a
sampan, Chinese vessel, IV-214a
sampler, needlework, *illus.* XI, opp. p. 304
samsara, in Hindu teaching, I-226b
Samson, legendary Hebrew hero, Index p. 130b
Samuel (11th cent. B.C.), Hebrew prophet, I-69a; Index p. 130b
Samuel, books of the Bible, I-421a
sanatorium X-427a
Sancho Panza, character in *Don Quixote*, V-428b
Sanctions, international action, X-389a
sanctuary, liberty of, X-354a
'Sand, George' (Aurore 'Baroness' Dudevant) (1804-76), French novelist, V-90a
sandalwood VII-320b, 224b
sandarac, resin, VII-219a
sand-dunes III-130a; plants, II-375b
sanderling, bird, II-266b
sand-glass timekeeper, VIII-455a
Sand-grouse, bird, II-362a
sand-hopper, crustacean animal, II-109b
Sandhurst, Royal Military Academy, X-43a
Sandown Park Racecourse IX-292a
sandpiper, bird, II-452a
Sandringham, royal estate, Norfolk, X-380b
Sands and Sandstone III-391a, 379b; building sandstone, VIII-270a; quarrying, VII-298a; quicksands, III-358a; sand in composition of soil, VI-420a
sand soils VI-422b; *illus.* VI-421
sand-storm III-130a
sandwasp, insect, II-456a
Sandwiches, recipes for, XI-392a
sandwich tern, sea-bird, II-191b

- San Francisco, U.S.A., III-391b, 454b; *map* III-451; Golden Gate Bridge, IV-172a; Oakland Bay Bridge, IV-173a
- San Francisco Earthquake III-392b
- Sanger's Circus IX-136a
- Sanhedrin, Jewish court of justice, Index p. 130b
- sanitary inspector X-350a
- Sanitation, History of, XI-393a; public health, X-348a; drainage, X-135a
- San Marino, *republic*, Italy, III-241b
- San Martín, José de (1778-1850), Argentine liberator, V-400b
- Sanskrit, ancient Indian language, IV-393a, 199b; literature, XII-209a; Rig-Veda hymns, I-419b
- sans serif lettering XII-241b
- Sans-Souci Palace, Potsdam, XI-349a; music room, *illus.* XI-261
- Santa Annas, winds, California, U.S.A., III-92a
- Santa Claus I-174b
- Santa Fé Trail IV-28a
- Santa Maria, The, Columbus' ship, IV-393b
- Santiago, Chile, South America, III-392b; *map* III-415
- Santols, Indian hill-tribe, I-247a
- São Paulo, Brazil, III-58a, b; *map* III-415; snake farm, II-398b
- São Sebastião de Rio de Janeiro, *river*, Brazil, III-371a; *map* III-415
- sap, of trees, II-157a
- sapajou (Capuchin monkey) II-275a
- sapodilla, tropical fruit, VI-465a
- saponification, chemical process, VIII-71a; soap manufacture, VII-401b
- Sapphire III-393a; Brazilian, III-445a; *illus.* XI, opp. p. 224
- Sappho (c. 600 B.C.), Greek poetess, V-401a; XII-248b
- Saprophytes, plants, II-362b
- sapwood, of trees, VI-443a
- saraband, dance, IX-175a
- Saracens (Turks) I-131b, 263b; *see also* Arabs; Turks
- Sarah, wife of Abraham, Index p. 130b
- Sarajevo, Yugoslavia, III-495b; X-159a
- Saratoga, Wyoming, U.S.A., X-26a; trunks, XI-210b
- Sarawak, Borneo, III-143b
- sarcophagus, stone coffin, XII-451a, 118b; *illus.* XII-143
- sardine II-207b
- Sardinia, I., Mediterranean Sea, III-393b
- sardonyx, mineral, III-6a
- Sargasso Sea, Atlantic Ocean, III-394b; *map* III-322
- Sargon (722-705 B.C.), Assyrian king, I-43a, 218b; palace of, XI-347a
- sari, Hindu female garment, XI-340b
- Sark, I., Channel Is., III-81a
- sarong, garment, I-102b, 250b; XI-340b
- sarrusophone, musical instrument, IX-487b
- Saryk, Siberian peoples, I-447a
- sash window XI-235a, 491a
- Saskatchewan, *province*, Canada, III-70b; *map* III-69
- sassafras oil VII-320b
- Sassanian (Sassanid) dynasty, of Persia (3rd-7th century A.D.), I-354b; XII-338a, 340b
- Sassetta, Stefano di Giovanni (1392-1450), Siennese painter, XII-421a; *illus.* I-331
- Sassoon, Siegfried (1886-), English poet, XII-272b
- Satan I-428b
- satellites, moons, III-297a; of planets, III-340a
- satellite town X-172b; XI-455a
- satin-spar, mineral, III-291b
- satinwood VII-224b, 76a
- Satire XII-404a; caricature, XII-59a; parody, XII-330a
- satraps, governors, V-123a, 372b
- Saturn, Roman mythol., Index p. 142b; *see also* Saturnalia
- Saturn, planet, III-343a, 340b
- Saturnalia, Roman festival, IX-284a; I-176b; XI-154b
- satyrs, mythological creatures, I-335a; Index p. 142b
- Sauces XI-396a
- Saudi Arabia III-15a; I-30a; *map* III-17; Index p. 113b
- sauerkraut, preserved cabbage, XI-181b
- Saul (11th century B.C.), Hebrew king, V-127a; Index p. 130b
- Saul of Tarsus, *see* Paul, St.
- Sausages XI-397b
- savannah, grasslands, III-196a
- savings VII-79b; investments, VII-411a; National Savings, X-289a; Post Office Savings Bank, IV-328b; *see also* bank account; bank failures
- Savonarola, Girolamo (1452-98), Italian preacher, V-401b
- savory, herb, VI-233b
- Savouries XI-398b
- savoury butters XI-396b
- savoy, cabbage, VI-65a, 65b
- saw-fish II-385b; IX-64a
- Sawfly II-363a; as pest, VI-250b
- sawmills VI-271b
- saws VIII-490b
- saxhorn, brass instrument, IX-94a, 89b
- saxifrage, plant, II-4b, 355a; Index p. 65
- Saxon art, architecture, literature, *see* Anglo-Saxon
- Saxons, German tribes, I-77a
- Saxony, *region*, Germany, III-186b, 457a
- saxophone, wood-wind instrument, IX-488b, 317a
- scabies, skin disease, VI-291a
- scabious, plant, VI-25a; Index p. 67
- scab-mite, pest, VI-291a, 291b
- scad, horse-mackerel, II-372b
- Scaffolding VIII-380b
- scalds XI-169b
- scale drawing VIII-147a
- scaled rule, drawing instrument, VIII-109b; *illus.* VIII-110
- Scale Insect II-363b; mussel scale, VI-27a
- Scales, musical, XII-407b; in modern music, XII-270a
- Scales, of skin, II-364a; of snake, II-397b
- scales, weighing, VIII-482b
- scallop, shell-fish, II-364a; VI-412b
- scampi, shellfish, XI-406b
- Scandenberg (George Castriot, 1403-68), Albanian leader, I-5a
- Scandinavia, *see* Denmark; Finland; Norway; Sweden
- Scandinavian civilization I-23a; ancient religion, I-197a, 215b; Norse myths, I-342b
- Scandinavian Languages IV-394b
- Scandinavians, *see* Danes; Finns; Norwegians; Swedes
- scanning, television, VIII-439a; IV-451b
- Scapa Flow, Orkney Is., III-327b
- scapegoat I-423b
- scapula (shoulder blade) XI-31b
- Scarab, beetle, II-365a
- Scaramouche, comic character, IX-389a
- scarecrows VI-475b
- Scarlatti, Alessandro (1660-1725), Italian composer, XII-309b, 293b; Domenico (1685-1757), XII-423b
- scarlet fever XI-252a
- scarlet pimpernel, plant, II-285a; fruit, II-168b; pollination, II-347a; Index p. 66
- 'scavenger's daughter', instrument of torture, X-453a
- scent VII-336a; XI-352a
- schalmey (shawm), musical instrument, 16th century, IX-487a; *illus.* IX-339
- Scharnhorst, Gerhard Johann David von (1756-1813), German soldier, X-35a
- Scharnhorst, German battleship, X-298a
- Scheele, Carl Wilhelm (1742-86), Swedish chemist, VIII-85b
- Scheherazade, character in *The Arabian Nights*, XII-18b
- scherzo movement, music, XII-424b; *table* XII-447
- Schiller, Johann Friedrich von (1759-1805), German poet, V-402b
- schist, rock, III-380a
- schizanthus, plant, VI-25b
- schizocarp, type of fruit, II-167b
- schizophrenia, mental disease, XI-310b
- Schleswig-Holstein, *provinces*, Denmark/Germany, III-395a; excavations, I-32a
- Schmidt, Bernhard, 20th-cent. German physicist, VIII-438a
- Schneider cup, aircraft-racing trophy, IX-9b
- schnorkel, submarine device, X-436b
- Scholasticism, of Middle Ages, V-14b
- Schönberg, Arnold (1874-), Austrian composer, XII-270a
- Schönbrunn Palace, Austria, III-466a; *illus.* V-293
- School Boards X-139b
- Schoolmen, *see* Scholasticism
- schools, history of, X-137a, 140b
- schools: City Company schools, VII-106b; 'night schools', X-4b; nursery schools, X-301b; polytechnics, X-332a; private schools, X-341b; public schools, X-351a; special schools, X-428a; state schools, X-142b; technical schools, X-448a

- Schools of Art** XII-409b
Schools Exploration Society IV-145a
 schooner, sailing boat, IX-422b
 schorl, mineral, III-445a
 Schottische, Scottish dance, IX-239a
 Schubert, Franz Peter (1797-1828), Austrian composer, V-403a; songs, XII-426b
 Schumann, Robert (1810-56), German composer, V-404a; songs, XII-426b
 Schutz, Heinrich (1585-1672), German composer, XII-332a
 Schwartz, Berchtold, 14th-cent. German monk, X-44a
 sciatica, pain in sciatic nerve, XI-325b
 scientific farming VI-373b
Scientific Management, industry, VII-383a; scientific production, VIII-334b; time and motion studies, VIII-336b
Scientific Names, of plants and animals, II-365b; botanical names, VI-55b
 scilla, plant, VI-61a
 Scilly Isles, off Cornwall, III-395b
 scintillator, in detection of radioactivity, VIII-356a
 Scipio Africanus (c. 235-183 B.C.), Roman general, V-208a
 scissor-bill (skimmer), bird, II-192a
 Scones XI-399a
 Scopas, 4th-cent. B.C. Greek sculptor, XII-184b
 scorch, plant disease, VI-253a
 score, musical, *illus.* XII-290
 Scoresby, William (1789-1857), Greenland explorer, III-206b
 scorification, of metal, VII-21b
 Scorpion, arachnid animal, II-366a; false scorpion, II-140a
 Scorpion-fish II-366b
 scorzonera, vegetable, VI-399b
 Scotch pancakes XI-399a
 scoter, duck, II-126a
Scotland III-396a; church, I-91b, 431a; crofting, VI-104a; folk-dancing, IX-238b; Highland games, IX-277a; Jacobite risings, V-430b; union with England, I-431b; wool-industry, VII-486b; *see also* David; Bruce; Wallace; Knox; Mary, Queen of Scots; Stuart, Charles Edward
 Scotland Yard, New, Whitehall, London, X-327b; C.I.D., X-82b
Scots I-431a
 Scott, Sir George Gilbert (1811-78), British architect, VII-229b; Sir Giles Gilbert (1880-), IV-47a
 Scott, Robert Falcon (1868-1912), British polar explorer, V-405a
 Scott, Sir Walter (1771-1832), British writer, V-406b; Lockhart's biography, XII-44b
Scottish Education X-389b
 Scottish Land Court VI-104b
 Scottish language IV-167a
Scottish Law X-391a
 Scottish local government X-250b
 Scottish Office, government department, X-393b
 Scouts, *see* Boy Scouts
 Scrap-books IX-425a
 scraper, earth-moving machine, VIII-117b
 screening, of coal, VII-114a
 screw, propeller, *see* propellers, aircraft; propellers, marine
 screw-jack, lever, VIII-382b
 Screw-threads VIII-381b
 scribes, manuscript writers, IV-180a
 scriptorium, monastery writing-room, IV-51a
 Scriveners' Company VII-107b
 scrofula, disease, XI-153a
 scrophulariaceae, plant family, Index p. 68
 sculling IX-412a, 74a
Sculpture XII-410b; in churches, XII-385b, 177a; bronze, XII-49b; modern, XII-265a
 scurvy, disease, XI-476b, 97a; of polar explorers, III-348b
 Scutari (Skodra), Albania, III-8b
 Scutari (Uskudar), Turkey, III-240a; V-339b
 Scylla, rock, Greek legend, I-335b; III-402b; Index p. 142b
 scythe VI-220b
 Scythians, peoples, I-414a; art, XII-358b
 Sea-anemone II-367b, 9a, 349a
 sea-bass, fish, II-372a
 sea-bear, seal, II-370a
 sea-bream, fish, II-372b; IX-18b
 Sea Cadet IV-408b
 sea-coal VII-115a
 Sea-cow II-368b
 Sea-cucumber (holothurian) II-369a
 sea-dragon, fish, II-369b
 sea-fan, coral, II-99a
 seagull II-190b
 Sea-horse, fish, II-369b
 Seakale IV-400a
 seakale beet (chard), vegetable, VI-424b
 Seal, sea-animal, II-370a; fur, VI-190a; VII-201b
 Seal, Great, of British Crown, IV-395b
 sea-lily, starfish, II-407a, b; III-261a
 sea-lion II-370a
 Sea Lords, naval officers, X-3b
 Seals, of documents, IV-395a
 seams, needlework, XI-401a
 Seann Triubhas, Scottish dance, IX-238b; *illus.* IX-278
 Sea-perch, fish, II-372a
 Seaplane IV-396b; contests, IX-9b; in First World War, X-6b
 Sea Power X-394b; British mercantile power, VII-390b, 305a
 searchlight X-8b
 seas, *see* oceans
 Sea Serpent II-373b
 Seashore Plants II-373b
 Seaside Resorts IX-425a
 sea-slug II-394b
 Sea Snake II-376a
 seasons III-135a; *illus.* III-137; festivals, I-174b
 Sea Squirt (tunicate), sea-animal, II-376b
 Sea Travel IV-398b; navigation, IV-287a; rule of the road, IV-380a; safety measures, IV-384a
 sea-trout II-362a
 Sea-urchin, sea animal, II-377a
 sea-wall VIII-165b-166b
 Sea Warfare, History of, X-397b; blockade, X-54b
 Sea Warfare, Modern, X-400b
 seaweed II-373b, 3a, 284a; manure, VI-279b
 Sebastian, St., Index p. 136b
 Sebastopol, port, Crimea, U.S.S.R., III-55a; siege of (1854-55), X-117b
 secant, trigonometry, VIII-463b
 second, time, VIII-272b
 secondary schools X-142b
Second World War X-402b; air raid, X-12b; air operations, X-15b; amphibious operations, X-26b; artillery, X-46a; Battle of Britain, X-50b; civil defence, X-88b; commandos, X-108a; conscription, X-112b; fortifications, X-166a; guerillas, X-178a; guided missiles, X-178b; intelligence services, X-209b; naval operations, X-7a, 397a; rationing, X-360a; table of events, Index p. 60; *see also* Churchill; Hitler; Mussolini; Fascism
 secret agent X-429b
 Secretariat, committee of U.S.S.R., X-386a
 Secretaries of State X-268a
 Secretary Bird II-378a
 Secret Service X-209a
 Secret Societies X-405b
 secret writing, codes and cyphers, IV-106a
 securities, gilt-edged, X-283a
 Security, in finance, VII-384b; for bank loans and overdrafts, VII-148a; pawnbroker's, VII-332b
 Security Council, U.N.O., X-474a
 Sedan Chair IV-401a
 Sedgemoor, Somerset, III-301a
 sedge warbler, bird, II-455a
 sedges, Index p. 71
 sedimentary rocks III-378b
 seed dispersal II-379b
 Seed-growing VI-400b; seed bed, VI-32a
 Seeds II-378b; fertilization, VI-150b
 seer (person claiming to foresee the future) I-144a
 Seger cones, thermometer, VIII-451a
 Seine, river, France, III-334b; map III-173
 seine net, fishing, VI-159b, 398b
 seismograph (instrument for recording earthquakes) III-140b; VIII-341b
 seismology (the study of earthquakes) III-183a
 selenite, mineral, III-291b
 selenium, element, III-279; use in picture transmission, IV-313a
 Seleucid dynasty in Asia Minor (312-64 B.C.) V-373a
 Self-service Stores VII-385a
 Seljuk Turks I-478b; conquest of Persia, XII-338b
 Selkirk, Alexander (1676-1721), sea captain, V-120a
 Semang, peoples of Malaya, I-291a-292a
 Semaphore, signal code, IV-401b
 Semites, I-433a
 Semitic Languages IV-403a; alphabet, IV-22b
 semolina, cereal, XI-48a

sempervivum, alpine plant, II-4b
 Senate: Roman, I-409b; American, X-20b
 Seneca, Lucius Annaeus (the Elder, c. 55 B.C.-A.D. c. 37), Roman writer, XII-239b; (the Younger, c. 5 B.C.-A.D. 65), XII-107b; V-334a
 Senefelder, Alois (1771-1834), inventor of lithography, IV-197a
 Senegal, territory, West Africa, III-208b-209b; map III-5
 Sennacherib, 7th century B.C. Assyrian king, I-43a; XII-30b, 32a
 senses II-380b; of sight, XI-150b; of hearing, XI-128b; of smell, XI-327b; of touch, XI-406b
 sensitive plant II-285b, 324b
 Seoul, Korea, III-252a; map III-87
 separation, legal, X-134b
 Septuagint, early Greek version of Bible, XII-459b
 sequin, Venetian coin, VII-123a
 sequoias (redwoods), trees, VI-460a; II-96b
 seraphim, angel, I-26b
 Serbia, province, Yugoslavia, III-494a; Serbians, I-492a
 Serbo-Croat language IV-420b
 serenade, music, XII-446b
 serfdom X-412a; in Russia, X-387b
 sericulture, see silk industry, silkworm serins, family of birds, IX-107a
 Serjeant-at-Arms, House of Commons, X-192b
 Sermons XII-413a
 serow, antelope, II-83b
 serpent, see snakes; sea serpent, II-373b
 serpentine, mineral, III-290b
 servants, domestic, XI-108b
 servo-controls: of aircraft, VIII-17a; lorries, IV-270b
 sesame, oil-bearing plant, VI-300b
 session, court of, Scottish law, X-391a
 Set, devil, ancient Egypt, I-429a, 159a
 Seth, son of Adam, Index p. 131a
 set square, drawing instrument, VIII-109b; *illus.* VIII-110
 setter, dog, IX-192b
 Settlement, Act of (1701), X-120b, 373a
 Seurat, Georges (1859-91), French painter, XII-162b; *illus.* XII-205
 Seven Years War (1756-63) V-173a, 293b
 Severn, river, III-59b; 'bore', IV-404a
 Severn Tunnel IV-403b
 Sèvres porcelain VII-448b; forgeries, XII-159a
 Sewage Disposal VIII-384a
 Sewing XI-400a, 308a
 Sewing Machine XI-403b
 Sextant, navigation instrument, IV-404a, 289b
 sexual reproduction: humans, XI-379b; animals, II-344b; heredity, II-203b; stock breeding, VI-426b; plants, II-345a
 Seychelles *Is.*, Indian Ocean, III-230b; map III-322
 Seymour, Jane (d. 1537), 3rd wife of Henry VIII, V-220a
 Shackleton, Sir Ernest Henry (1874-1922), British explorer, V-408a
 shad, herring, II-207a; fishing, VI-159b

shaddock, fruit, VI-90a
 shadoof, water-raising device, VIII-342a
 Shadrach, biblical character, Index p. 131a
 Shaftesbury, Anthony Ashley Cooper, Earl of (1801-85), V-409a
 shag, sea-bird, II-99a
 shagreen, shark's skin, II-384b
 shah, ruler of Persia, I-356b
 Shaka, Zulu chief, 19th century, I-495b
 Shakespeare, William (1564-1616), V-410b; on acting, IX-6a; sonnets, XII-428b-429b
 Shakespearian Drama XII-414a, 91b, 457a
 shako, military hat, X-471b; *illus.* X, opp. p. 48
 Shale Oil VII-385b; VIII-173b
 shales, clays, III-89b
 shallots (eschalots), vegetable, VI-304b
 Shalmaneser III, Assyrian king, 9th century B.C., I-42b
 Shamanism, primitive religion, I-439b, 163b
 Shang dynasty, of ancient China, I-107a; XII-72b
 Shanghai, port, China, III-399a; map III-87
 Shang-ti, god, ancient China, I-113a
 Shannon, river, Irish republic, III-400a
 Shans, Burmese people, I-85b; Shan plateau, III-64a
 Shansi, province, N.W. China, III-86b
 shanties, songs, XII-156a
 shaping machine, metal, VIII-261b
 shares, investments, VII-411a; in co-operative societies, VII-128a; in limited companies, VII-266b, 268a
 Shark Fishing VI-402b
 Sharks and Rays II-383b; hammer-headed shark, IX-64a
 Sharp, Cecil (1859-1924), English folk-dance collector, IX-236b, 237a
 sharpling (stickleback), fish, II-412a
 Shasta Dam, Sacramento river, California, VIII-69a
 shaving XI-18b
 Shaw, George Bernard (1856-1950), Irish dramatist, V-412a
 shawm (schalmey), 16th-cent. musical instrument, IX-487a; *illus.* IX-339
 shea butter, tree, VI-301b
 shearing, sheep, VI-410b
 shearwater, sea-bird, II-315b, 317a
 Sheba, Queen of, Index p. 131a
 Sheep VI-403a; breed-improving, VI-8a; feeding, VI-147a; parasitic pests, VI-168a, 291b; shepherd, VI-412b; tropical sheep, VI-23b
 Sheep, wild, II-386a
 Sheep Dogs VI-407b; trials, VI-409b
 sheep-farming, history of, VII-479a; VI-308b
 Sheep Shearing and Dipping VI-410b
 sheep skins VII-188a, 226a; karakul, VI-185b
 Sheet-metal Work VIII-386a
 sheet-piles, in construction, VIII-84a
 sheets, bedclothes, XI-19b
 Sheffield, cutlery industry, VII-152a
 Sheffield Plate VII-385b
 Sheffield University X-346b

sheikhs, Arab chiefs, I-426a, 30b
 sheldrake, duck, II-124b, 125a
 shell, artillery, X-45a; *diag.* VIII-174, 175
 Shellac, resin, VII-387a
 shell construction, concrete, VIII-90a
 Shelley, Mary Wollstonecraft (1797-1851), V-414a
 Shelley, Percy Bysshe (1792-1822), English poet, V-413b
 Shellfish XI-405b; crustacea, II-109b; molluscs, II-270b
 Shell-fish Gathering VI-411b
 shells II-270b; as currency, VII-354b
 Shem, son of Noah, Index p. 131a
 Shensi, North, province, N.W. China, III-86b
 Sheol, underworld, early Hebrew religion, I-216b, 224a
 Shepherd VI-412b
 shepherd's purse, flower, Index p. 64
 sherardizing, of metals, VIII-423a
 Sheraton, Thomas (1751-1806), British cabinet-maker, VII-76b; XI-51b, 195b
 Sheridan, Philip Henry (1831-88), American general, X-20a
 Sheridan, Richard Brinsley (1751-1816), British dramatist, V-415a
 Sheriff X-409a; Scottish, X-391b
 Sherlock Holmes, detective, V-144b; XII-102b
 Sherman, William Tecumseh (1820-91), American general, X-20a
 sherry VII-472b
 Shetland Islands, Scotland, III-401a
 Shetland pony IX-289a
 Shiah, Moslem sect, I-261a, 464b
 Shia-push (Kafirs), Afghan peoples, I-3b
 shield X-37a; IV-184a
 Shield Bug II-387a
 Shilluk, people of Sudan, North Africa, III-424a; I-339a
 shingles, disease, XI-252a
 shingles, tiles, XI-385b
 Shinto, Japanese religion, I-433b
 shinty, Scottish game, IX-426b
 Ship IV-404b; anchors, VIII-10b; buoyancy, VIII-48a; flags, IV-149b; launching ceremony, IX-473b; Lloyds, insurance, IV-236b; loading, VIII-48b; navigation, IV-287a, 293b; propeller, VIII-339a; rule of the road, IV-380a; safety measures, IV-384a; signalling, IV-416a; tonnage, IV-454b
 ship: aircraft-carrier, X-6b; battleship, X-52a; electric ship, IV-134a; liner, IV-234a; model ships, IX-323b; motor ship, IV-275b; sailing ship, IV-387a; steamship, IV-433b
 Shipbuilding VIII-388a; naval architecture, VIII-308a
 Shipbuilding Industry VII-387b; prefabrication, VIII-332a
 Ship Money X-409a
 Shipping VII-390b; IV-265b; bill of lading, VII-42b; East Indiamen, VII-172b; Navigation Acts, VII-305a
 Ship Repairs VIII-392a; salvage, IV-391a
 Ship's Company IV-407b
 ships' engines VIII-266a

- ship surveyor VIII-311a
 Shipton, Eric (b. 1907), mountaineer, IX-333b
 Shipworm II-387b
 shipwreck IV-489a; derelicts, IV-121a; salvage, IV-391a
 shire court X-246b
 shire horse VI-239b
 shire-reeve, *see* sheriff
 Shiva, Hindu god, I-226a; IX-173b
 shock, symptoms and treatment, XI-167b
 Shock Absorbers VIII-394a
 shock therapy XI-311a
 'shock wave', aerodynamics, VIII-218b
 Shoeing, horse, VI-413b
 shoes XI-33a; manufacture, VII-52b
 Shoguns, rulers of Japan 16th-19th century, I-268b
 shooting: duck, IX-202b; game, IX-249b; pistol-shooting, IX-376a; rifle-shooting, IX-407b
 shooting stars III-285b, 286b
 shophar, ancient musical instrument, IX-340a; I-280b
 shopkeeping VII-375b
 shop steward, of trade union, VII-452b
 Shoring and Underpinning, buildings, VIII-394b
 shortbread XI-25b
 short-circuit, electricity, VIII-127b
 Shorthand IV-409b
 shorthorn cattle VI-78a; *illus.* VI, opp. p. 80; first bred, VI-8a; Lincoln red, VI-79a; value, VI-74b
 Short-Mayo aircraft IV-13a
 Short Stories XII-417a
 Shortt clock VIII-455b
 Short-wave Wireless IV-410b
 shot blasting, of cast iron, VIII-423a
 shott, marshland of North Africa, III-302a
 shovel-fish II-414b
 showboats, of Mississippi river, III-292b
 shradan, insecticide, VI-248a
 shrapnel X-44b; shrapnel mine, X-58b
 Shrapnel, Henry (1761-1842), British soldier, X-44b
 Shrew, mammal, II-388b; use to farmer, VI-490a
 Shrike (butcher-bird) II-389b
 shrimp II-328b, 109b
 Shrimping and Prawning VI-414b
 Shrines, of Christian saints, XII-418b; I-367a, 469a
 shrinking of materials, in engineering, VIII-155b
 Shrovetide, spring festival, I-175a
 Shrove Tuesday IX-472a, 284a; carnivals, IX-114b; contests, I-175a; pancake scramble, Westminster School, IX-473a
 shrubs VI-164b; hedges, VI-191b; wall-shrubs, VI-93a
 shuffleboard, deck-game, IX-179a
 shunting, railway, IV-259a
 shunt winding, electrical, VIII-135a
 shuttering, in concrete construction, VIII-91b
 shuttle car, mining machinery, VIII-305a
 shuttlecock, child's toy, IX-447b; in badminton, IX-43a
 Siam (Thailand) III-402a
 Siamese I-435b; language, IV-94b
 Siamese cat IX-117b
 Sibelius, Jean (1865-), Finnish composer, V-415b
 Siberia, U.S.S.R., III-386a; *map* III-459
 Siberian Peoples I-436a; death ceremonies, I-139a
 Sicilians III-402b; I-263b
 Sicily, Mediterranean I., III-402b; foreign invasions, I-263b; Mafia society, X-406b
 Siddons, Sarah (1755-1831), British actress, V-415b
 sideboard XI-56a
 sidereal time III-67a
 side-winder, snake, II-397b
 sidings, railway, IV-259a
 Sidney, Sir Philip (1554-86), English poet, V-416a, 423b
 Sidon, ancient Phoenician city, Syria, I-363b; Index p. 131a
 Siebe, Augustus (1788-1872), Prussian engineer, IV-127b
 Siege X-409b
 Siegfried, Wagner, XII-376a
 Siemens steel process VIII-238b
 Siense Painting XII-419b, 324a
 Sierra Leone, territory, West Africa, III-208b; *map* III-5
 Sierra Nevada de Merida, *mountain ranges*, South America, III-462b
 sight II-380b; eye structure, XI-150b
 sight rule, surveying instrument, VIII-429b
 signal-box, railway, IV-411b; electric, IV-135a
 Signalling, Railway, IV-411b
 Signals IV-414a; flag signalling, IV-150b; light signalling, IV-233a; Morse, IV-268b; semaphore, IV-401b
 signals, aircraft, IV-290b
 Signals at Sea IV-416a
 signet, ring, IV-395a
 significant figures, in mathematics, VIII-14a
 Signorelli, Luca (c. 1441-1523), Florentine painter, XII-155a
 Signs and Symbols IV-416b, 492b; mathematical symbols, IV-260a; trade signs, VII-448a
 Sikhism, Indian religion, I-440a
 Si-Kiang (West River), China, III-404a; *map* III-87
 Sikkim, state, N.E. India, III-226b
 Silage VI-415a
 Silas, companion to St. Paul, Index p. 131a
 Silenus, Greek mythol., Index p. 142a
 Silesia, Poland, III-344b; *map* III-186
 Silhouettes, portraits, XII-421b
 silica, mineral, III-290a; 166a; in clay, VII-57b; as heat-resisting mineral, VIII-161a; in glass-making, VII-204a; silicate minerals, III-290a
 siliqua, type of fruit, II-167b; Index p. 64
 silk, artificial, VII-372a
 Silk Industry VII-394a
 Silk Moths II-390a; Syrian silk moth, II-235b
 Silkworms VI-416a
 sills, rock formation, III-376b
 silo, tower for fermenting crops, VI-415b
 Siloam, Pool of, near Jerusalem, Index p. 131a
 silt, type of soil, VI-420a
 silting, of canals and rivers, IV-130a
 Silurian age, *chart* III-139
 Silvanus, Roman god, I-452b
 silver III-283b; assaying, VII-20b
 Silverfish, insect, II-391a; as household pest, XI-230b
 silver fox VI-185b
 silver gilt VII-210b
 silver halides, chemical, VIII-325a
 silver leaf, plant disease, VI-325b
 Silver-mining VII-396b
 silver-plating VIII-141a
 Silverstone, motor-racing course, IX-328a
 silver-weed, rose, II-357a
 silver work VII-207b
 silver-Y moth II-290b
 Simeon, Charles (1759-1836), leader of Evangelical movement in Church of England, I-125b
 Simeon, son of Jacob, Index p. 131a
 simile, figure of speech, XII-147a
 Simla, N. India, III-217a; *map* III-229
 Simnel cake XI-157a
 Simon, a sorcerer in the New Testament, V-359b; Index p. 131a
 Simon, Thomas (c. 1623-65), medallist, XII-252a
 Simone Martini (c. 1285-c. 1357), Siense painter, XII-421a, 341b; *illus.* XII-25, 342
 Simonides, Greek poet, 5th cent. B.C., XII-187b, 135a
 Simon Peter, Apostle, V-358b
 Simon Zelotes, Apostle, Index p. 131a
 simoom, sand-storm, III-130a
 Simplon Tunnel IV-417b
 Simpson, Sir James Young (1811-70), Scottish physician, XI-4a
 Sinai, Mount, Egypt, III-149b; Index p. 131a
sinanthropus pekinensis (Peking man), fossil remains, I-182b
 Sind, desert and province, Pakistan, III-227a, 332a; *map* III-229
 Sindhi language IV-199b
 sine, trigonometry, VIII-463b
 Singapore, Malaya, III-404b; in Second World War, X-292b
 Singer, Isaac (1811-75), maker of sewing machines, XI-404b
 Singing IX-427a; song, history of, XII-424b
 Singing Games IX-428b
 Singlestick, sport, IX-430a
 Sinhalese (Cingalese), people of Ceylon, I-101a; language, IV-200a
 sink, in rock formation, III-76b
 sink-a-pace (galliard), dance, IX-50a
 Sinkiang, province, China, III-86b
 Sinn Fein, Irish secret society, X-407b
 sintering, metal pressing, VIII-169a
 sinus, nose cavity, XI-327b
 Sion (Zion), sacred hill, Jerusalem I-470a; Index p. 132b
 siren (mud eel) II-359b

- Sirens, Greek mythol., I-335b; Index p. 142b
- Sirius, star, III-109b
- Sirocco, wind, III-405a, 7b, 16a
- sisal, plant, VI-152b; in rope-making, VII-373b
- Sisera, Canaanite commander, Index p. 131a
- siskin, finch, II-145a
- Sisley, Alfred (1839-99), painter of French school, XII-205a
- Sistine chapel, of Vatican, XII-462b; *illus.* I-221
- 'Sistine Madonna', Raphael, V-383a
- sistrum, ancient musical instrument, IX-339a
- Sisyphus, Greek legend, Index p. 142b
- Sitwell, Edith (1887-), English writer, XII-271a
- Six, *Les*, group of composers, XII-269b
- sizar, Cambridge University, X-480a
- skate, sea animal, II-385b
- skater, pond insect, II-59a
- Skating IX-430b
- skeleton, *see* anatomy; bones and joints
- Ski-ing, sport, IX-432b; as means of travel, IV-423a
- skimmer (scissor-bill), bird, II-192a
- skimmer, earth-moving machine, VIII-119a
- Skin: human, XI-406b; animal, II-391a
- Skin, Care of, XI-408b
- 'skin friction', resistance in water, VIII-309a; in air, VIII-218b
- skink, lizard, II-249b, 250a
- Skinners Company VII-107a
- skipjack (click beetle) II-472b; as agricultural pest, VI-51b
- skipper, garfish, II-175a
- Skippers, butterflies, II-391b, 62a
- Skittles, game, IX-435a; table skittles, IX-388a; *illus.* IX-387
- skua, aircraft, X-292a
- skua, gull, II-192a
- skull structure XI-31a
- skunk, weasel, II-462b, 464a
- sky, colour of, III-103b; *see also* atmosphere
- Skye, *I.*, Hebrides, Scotland, III-215a
- Sky-God I-441b
- skylark II-239b
- Skyscraper XII-422b
- slag, iron, VIII-25b-27a; as plant fertilizer, VI-36b
- slalom: canoeing contest, IX-112a; ski-ing contest, IX-433b
- slander, legal, X-240b
- Slang IV-418b; of universities, X-481a; Americanisms, IV-26b
- slap stick (jazz-stick) IX-366b
- slate, rock, III-380a
- Slate Industry VII-398a
- slater (woodlouse) II-477a
- slates, for roofing, XI-384b
- slaughter-house X-161b
- slave-maker ants II-20b
- Slavery X-411a; in American colonies, I-13b; V-265a; in U.S.A., X-19a
- Slave Trade VII-399b; slave smuggling, X-416b
- Slavonic Languages IV-420a
- Slavs I-441b, 88b; folk dances, IX-235a
- Sledge IV-421b, 423a
- Sleep XI-409b; of babies, XI-12a; of plants, II-284b
- sleepers, of railway track, VIII-363a
- Sleeping Beauty*, *The*, ballet, IX-48a
- sleeping-cars, of trains, IV-344a
- sleeping sickness XI-461a
- sleet III-405b
- Sleipnir, horse, Norse mythol., I-335b
- Slide Rule, calculating instrument, VIII-395a
- sling, of crane, VIII-278b
- Slingsby, William Cecil (1849-1929), mountaineer, IX-333a
- slip gauges, measuring instruments, VIII-251a
- 'slip' pottery VII-352b
- Sloane, Sir Hans (1660-1753), British physician, IV-67a
- sloe gin XI-495b
- sloop rig, of sailing boat, IX-422b
- Sloth, mammal, II-392a
- Slovakia, *province*, Czechoslovakia, III-119b
- Slovaks, peoples of Czechoslovakia, I-135b; Slovak language, IV-420b
- Slovenes, peoples of Yugoslavia, I-492a, b; Slovene language, IV-420b
- Slovenia, *region*, Yugoslavia, III-494a
- Slow-worm II-393a
- Sloy, Loch, Scotland, power station, *illus.* VIII-220
- sludge, sewage, VIII-384b
- Slug II-394a; as plant pest, VI-325b
- sluice, of canal or river lock, IV-237a; Denver sluice, Cambridgeshire, VIII-159b, 160a
- slump, trade depression, VII-439b; unemployment, VII-458a
- Slums X-413a; pioneer rehousing of Octavia Hill, X-197b
- smallholdings VI-17a
- smallpox, disease, XI-143a
- Smeaton, John (1724-92), British engineer, VIII-76b; Eddystone light-house, IV-231a
- smell II-380b, 383b; nose structure, XI-327a
- smelting, metal, VIII-282b; assaying, VII-20b; iron smelting, VIII-235b
- Smetana, Bedrich (1824-84), Czechoslovak composer, XII-366a, 98b, 312b
- smew, duck, II-126b
- Smith, Adam (1723-90), Scottish political economist, V-417a; VII-182b; on taxation, X-444a
- Smith, John (1580-1631), colonist of Virginia, I-16a
- Smith, Joseph (1805-44), founder of Mormon sect, I-328b
- Smith, William (1769-1839), geologist, III-182b
- Smith, W. H. (1825-91), bookseller, IV-53b
- Smithfield Market, London, VII-353a; cattle show, VI-14a
- smithy, blacksmith's or farrier's workshop, VI-413b
- smocking, needlework, XI-323a
- smoke-screen, in air warfare, X-8b
- smoke signals IV-414b
- smoking, food preserving, XI-181a
- Smoking XI-412a; tobacco industry, VII-437a
- Smollett, Tobias (c. 1721-71), English novelist, XII-299a
- Smooth Snake II-395a
- Smugglers X-416b; customs and excise, X-126a
- Smuts, Jan Christiaan (1870-1950), South African general and statesman, V-417a
- smuts, plant diseases, VI-340a
- Snail II-395b; movement, II-283a; as agricultural pest, VI-325b; as food, XI-405b
- snake-bird (darter), cormorant family, II-99b; (wryneck) woodpecker family, II-478a
- snake plant VI-246a
- Snakes II-396b; movement, II-283a; skins, VII-226a; snake farms, III-57b
- snakeshead (fritillary), lily, II-246b
- snapdragon (antirrhinum), plant, VI-54a, 47a; family, Index p. 68
- snares, animal, VI-452b
- snipe, bird, II-451a, 13b; migration, II-267a
- snooker, billiards, IX-67a
- Snow III-405b; effect on communications, IV-100b
- Snow and Ice Travel IV-422b
- snowberry, shrub, VI-166a
- Snowdon, *mt.*, N. Wales, III-470b, 467b; IX-332b
- snowdrop, plant, VI-59b, 61a, 492b; family, Index p. 69
- snow-plough IV-100b
- snow shed, of railway track, VIII-364a
- snowshoes IV-423a
- snuff XI-412b
- Soap XI-67a, in history of personal hygiene, XI-355a
- Soap Manufacture VII-401a
- soapstone, mineral, III-291a
- Sobieski, John (1629-96), King of Poland, V-418b
- soccer (Association Football) IX-23b
- Social Classes XI-413a
- Social Contract*, Rousseau, V-394b
- Social Environment XI-414b
- Social Insurance X-418a; Friendly Societies, X-170b; work of Lloyd George, V-280a
- Socialism X-421a; 70b; British Labour Party, X-330b; teaching of William Morris, V-323a
- Social Precedence XI-416a
- Social Service, National Council of, X-85a
- Society *Is.*, Pacific Ocean, III-113a; *map* III-323; Polynesians, I-370b
- Society of Friends (Quakers), Christian denomination, I-388a
- Socrates (469-399 B.C.), Greek thinker, V-419b
- soda VII-12b; 'washing soda', VII-14b; as detergent, XI-67a
- sodium, alkali, VII-13a-14b; sodium chlorate as weed-killer, VI-481a
- Sodom, city on the Dead Sea, Index p. 131a
- Sofia, Bulgaria, III-406b; *map* III-160
- soft rot, plant disease, VI-341b
- Softwoods VII-402b; seasoning, VII-434b

- Soil Erosion III-406b; in tropical agriculture, VI-461a; reclamation, VIII-245b
- Soilless Culture VI-418a
- Soil Mechanics VIII-396a, 44b
- Soils VI-418b; fertility of, VI-472b; sterilization, VI-355a
- Sokols, physical culture societies, I-136a; *illus.* IX-270b
- solanaceae, plant family, Index p. 66
- solan goose (gannet) II-174a
- Solar Energy VIII-397a
- solar system III-27a
- solar time III-67a
- soldanella, alpine plant, II-350a
- Soldering VIII-398a
- soldier bird II-210b
- sole, fish, II-152b
- sole-fa (system of musical notation) XII-455b
- solicitor X-239a
- Solicitor-General X-237a
- solitaire: board game, IX-73b; card game, IX-362a
- solitaire pigeon II-321b
- Solomon (10th cent. B.C.), King of Israel, V-420b; Index p. 131b; Solomon's temple, I-470a, 278b; *illus.* I-218
- Solomon, the Wisdom of, Hebrew sacred book, I-421a
- Solomon Is., Melanesians, I-304a, 306; map I-350; art, XII-305b; *see also* Pacific Islands
- Solomon's seal, plant, II-246a, 411a; Index p. 69; *illus.* VI-59
- Solon (c. 640-559 B.C.), Athenian lawgiver, V-421b
- solstices (days of year when sun is farthest from equator) III-29b
- Somaliland, East Africa, III-408b; Somalis, I-339a
- Somers, Sir George (1554-1610), British admiral, III-52b
- Somers, Will, jester, IX-299a
- Somerset: Cheddar Gorge, III-77b; co. cricket, IX-158b
- Somerset House XII-369a
- Somme, battle of the (1916), X-160a
- Sonata XII-423a; sonata (first movement) form, XII-285a
- Song, History of, XII-424b
- Song of Songs, Hebrew sacred writings, I-421a, 70a
- Songs XII-426b; form, XII-284b
- 'sonic bang', effect of supersonic flight, VIII-219a; *see also* supersonic flight
- Sonnet XII-428b
- Soothsayer, one who foretells the future, I-142b
- Sophocles (c. 495-406 B.C.), Greek dramatist, V-422a; XII-456b
- Sophomore, of American university, X-24a
- soprano voice IX-428a, 351a
- Soranus of Ephesus, Greek physician, XI-344b
- sorbo rubber VII-343b
- Sorbonne, University of Paris, X-476a
- sorcerer, I-288a, 450a, 489b
- sorghum, millet, VI-289a
- sorrel, plant, Index p. 70
- SOS, distress signal, IV-416b
- soufflés XI-130a
- soul I-452b
- Sound III-409a; acoustics, VIII-1a; amplification, IX-337b; VIII-448a; *diag.* VIII-462; musical, IX-336a; XII-407b; ultrasonic vibrations, VIII-468a
- soundings, ocean, VIII-221b
- Sound Insulation VIII-399a; in houses, XI-175b
- Sound Recording and Reproduction VIII-400a; gramophone, IX-262a; photocells, VIII-324b; sound recording for films, VIII-400a, 74a; IX-225a
- Soup XI-417b
- soursoop, tropical fruit, VI-464b
- Sousa, J. P. (1854-1932), American composer, IX-318a
- sousaphone, musical instrument, IX-94a
- South Africa III-411b, 4b; colour problem, X-107a; diamond industry, VII-158b-160b; Test cricket, IX-165a; wine production, VII-472b
- South Africa, Government of, X-422b
- South Africa Company, *see* British South Africa Company
- South Africans I-442a
- South African War X-423b
- South America III-414a; colonization, X-103b; independence, X-105a; *see also* Central America
- South Americans, *see* American Indians, Central and South; Argentines; Bolivians; Brazilians; Chileans; Colombia, peoples of; Ecuador, peoples of; Paraguayans; Peruvians; Uruguayans; Venezuelans; West Indians; *see also* Central Americans
- Southampton, dry dock, IV-129b
- Southampton University X-346b
- Southend, Essex, IX-425b
- southerly burster, wind, III-92b
- Southern Cross, constellation, III-109a; *illus.* III-110
- Southey, Robert (1774-1843), British poet, V-98b
- South Georgia, British Antarctic settlement, III-164b; map III-322
- South Pole III-345b, 346b; exploration, III-349a
- South Sea Bubble, financial disaster, VII-403a; V-469a
- South Sea Islands, *see* Pacific Islands; Pacific Islanders
- Southwark Bridge, London, IV-62b
- sovereign, *see* monarchy
- sovereign, coin, VII-124a; X-271b; *illus.* VII-123
- Sovereign of the Seas, The, IV-423b
- Soviet Central Asian Peoples I-445a
- Soviets, councils, U.S.S.R., X-253a; Supreme Soviet, X-385b
- Soviet Union, *see* U.S.S.R.
- Soya Beans VI-422b; in cooking, XI-48b; food value, XI-185b; oil seed, VI-423a
- Soyer, Alexis (1809-58), French chef, XI-82a
- Spa, health resort, IX-436a
- Space III-417a
- space travel IV-209a
- spadefoot toad II-433a
- spaghetti XI-349b
- Spain III-418b; Balearic Islands, III-45b; dances, IX-230a, 235a; Franco régime, X-454a; Gothic invasion, I-202b; iron ore deposits, VII-252a, b; mercury mining, VII-292b; Moorish kingdom, I-448b; Central and South American colonies, X-103b, 105a
- span, unit of measurement, VI-9b
- Spaniards I-448a
- spaniel, dog, IX-192b, 199b
- Spanish and Portuguese Languages IV-424b
- Spanish architecture XII-430b
- Spanish Armada X-424b; IV-31b
- Spanish Art XII-430b
- 'Spanish boot', instrument of torture, X-453a
- Spanish drama XII-108a
- Spanish Inquisition I-254b
- Spanish Literature XII-432b
- Spanish national dress XI-148b; *illus.* XI, opp. p. 368
- Spanish sculpture XII-432a; *illus.* XII-431
- Spanish Succession, War of the (1702-13), V-294b
- sparkling plug, of petrol engine, VIII-230a-231a
- Sparrow, bird, II-399a; hedge sparrow, II-472b
- sparrow-hawk II-196a; IX-210b
- Spartans, people of ancient Greece, I-449b, 204a; defence of Thermopylae, V-494a
- spartina, salt-marsh plant, II-375b
- Speaker of the House of Commons X-425b
- speaking clock VIII-457a
- special constable X-329a
- Special Hospitals X-426b
- specialization, in industry, VII-163a
- Special Schools X-428a
- Spectacles XI-419a
- Spectator, The, periodical, V-3b; XII-336a
- spectrograph, light-analysing instrument, VIII-402b
- spectrometer, light-measuring instrument, VIII-403a
- Spectroscope, light-analysing instrument, VIII-401b; III-104a
- spectrum, of light, III-102b; VIII-402a
- Speculation VII-404a; South Sea Bubble, VII-403a; stock exchange, VII-411a
- Speech IV-62b, 217a; conversation, XI-76a; language structure, IV-221a; voice, IV-478b
- Speech, Transmission of, IV-426b
- speeches, rhetoric, XII-374b
- Speed, effect on human body, IV-428b
- speed limits, road, IV-372b
- Speedometer VIII-403a
- speed records: aircraft, IX-9a; motor-car, IX-326b; railway, IV-350b
- speedway racing IX-185a
- speedwell, plant, Index p. 68
- Spoke, John (1827-64), explorer, V-65a
- Spelling IV-429b
- Spells and Charms I-450a; XI-153a
- Spencer, Herbert (1820-1903), English philosopher, V-423a

Spengler, Oswald (1880-1936), German philosopher, XII-194b
 Spenser, Edmund (c. 1552-99), English poet, V-423a; XII-7a
 Spenserian stanza, poetry, XII-471b
 sperm (spermatozoon), reproductive cell: human, XI-379b; animals, II-344b; plants, II-346a
 sperm whale II-467b; hunting, VI-483b
 spermaceti, wax, VI-484b
 S.P.G. (Society for the Propagation of the Gospel in Foreign Parts) I-126a
 sphagnum (bog-moss) II-277a
 sphere, figure, VIII-189b
 spherical aberration: of lens, VIII-254a; of telescope, VIII-437a
 Sphinx XII-434a; *illus.* XII-440; Index p. 142b
 Spice Crops VI-423a
 Spice Islands, Indian Ocean, III-230b; *map* III-322; discovery of, V-288b
 spices: trade, VII-216a; uses of, XI-221a
 Spiders II-399b, 349a, 294a; red spider, II-269b
 spillways, of dams, VIII-104b
 Spinach Crops VI-424a; spinach family, Index p. 70
 spinal cord XI-7a, 323b
 spine (vertebral column) XI-30a
 spindle, flowering shrub, VI-166a
 spinet, musical instrument, IX-302b
 spinning: cotton, VII-140a; linen, VII-269a; silk, VII-394a; wool, VII-487a
 spinning-jenny VII-485a
 spinning wheel *illus.* VII-487
 Spinoza, Benedictus de (1632-77), philosopher, V-424a
 spirilla, bacteria, II-28b
 Spirits, supernatural, I-452b
 spirits, alcoholic, XI-492b
 spirits of salts, acid, VII-5b
 Spiritualism, religious cult, I-454a
 spirituals, negro songs, XII-297a
 spirogyra, single-celled plant, II-3a, b
 Spitalfields, London, silk industry, VII-396a; market, VII-280b
 Spitfire, aircraft, X-153b
 Spitsbergen (Svalbard), polar territory, III-420a
 Split (Spalato), Yugoslavia, III-495b; V-139a
 Spode porcelain VII-348b
 spokeshave, tool, *illus.* VII-82
 spondee, metrical foot in poetry, XII-468b
 Sponge II-402a, 8b
 sponge cakes XI-40a
 sponsored broadcasting IV-68b; IX-102a
 spoon XI-444a
 spoonbill: bird, II-413a; fish, II-414b
 spoon dredger IV-130a
 sporozoa, single-celled animals, II-335a
 spores, reproductive cells, II-345a; of ferns, VI-149b; of moulds, II-280a
 Sporting Guns and Rifles IX-437a
 sports: athletics, IX-31a, 35a; comic sports, IX-146a; traditional sports and customs, IX-472a
 sports commentaries, of B.B.C., IX-98a
 sprains XI-33a, 169a
 sprat, fish, II-207a
 Spraying and Dusting Machines VI-425a

spring balance VIII-483a
 springbok, antelope, II-17b
 spring cleaning XI-246a
 spring festivals I-174b-177a; IX-284a
 spring haas (cape jumping hare) II-354b
 Springs, mechanical, VIII-404a, 473b
 springs, water, III-483a; hot springs, III-188a; mineral springs, IX-436a
 sprinting, athletics, IX-38b
 sprocket wheels, of chains, VIII-24b
 spruce, tree, VI-460b; *illus.* II-96; timber, VI-175a; *illus.* VII-402
 spur-dog, shark, II-385a
 spurge, plant, Index p. 70
 Spurgeon, Charles H. (1834-92), Baptist preacher, I-64b
 Spy X-429b, 209b
 squamata, family of snakes, II-396b
 square root, arithmetic, VIII-14b
 squash, gourd vegetables, VI-205b
 Squash Rackets, ball game, IX-440a
 squid, sea-animal, II-113a; fishing, VI-299a
 squint, eye disorder, XI-151b
 Squirrel II-404a; as farm pest, VI-475b; fur, VII-201b; longevity, II-187b
 squirrel, flying (phalanger), II-261b
 S.S., German police, X-323a
 stability: aircraft, IV-153b; ship, VIII-48a; stabilizers, VIII-269a
 Stable Fly II-405a
 staff, in musical notation, XII-287b
 Staff (military) X-430a
 Staffordshire, *co.*, III-156a; in *co.* cricket, IX-159b
 Staffordshire pottery figures *illus.* VII-349; VI-448a
 stag, deer, II-116b; 'royal' stag, II-117b
 Stag Beetle II-405b
 stage, see acting; play production; theatre
 Stage-coach IV-430b
 Stage Design IX-440b
 stage-manager IX-379b
 stage-wagons IV-89b
 Stag Hunting IX-442b; stalking, IX-179b
 Stained Glass XII-435a
 stainless steel VIII-235a
 Staircases XI-420b
 stake-net, variety of fish trap, VI-161a
 stalactites III-76b
 stalagmites III-76b
 stalemate, in chess, IX-126a
 Stalin, J. V. Djugashvili (1879-1953), Russian leader, V-424b
 Stalingrad, U.S.S.R., III-386a; X-411a; *map* III-459
 stalking, animals, IX-65a
 stalling, of aircraft, IV-2a, 153b
 Stamp Act (1765) X-25b
 Stamp Collecting IX-443b
 stamp duties X-445a
 stamping, metal, VIII-168a
 stamps, postage, IV-324b, 328a
 Standard, battle of the (1138), V-126a
 standard, flag, IV-148a
 Standard English IV-432a
 standardization, in engineering design, VIII-146b; in manufacture, VIII-335b
 standard measures IV-262a; VIII-272b

Standard of Living VII-405b; cost of living, VII-136b
 standing-salt XI-444a; *illus.* XI-75
 Stanford, Charles Villiers (1852-1924), English composer, XII-398b
 Stanley, Sir Henry Morton (1841-1904), British explorer, V-425b
 Stanley, J. K., inventor of 'Safety' bicycle, IV-45b
 Stanley Falls, Belgian Congo, Central Africa, III-106b
 stanza, of poetry, XII-470b
 starboard, direction in navigation, IV-385a
 starch: food value, XI-336b; plant food, II-318a; in laundrywork, XI-279a;
 Star Chamber, court of law, X-431a;
 control of political reporting, IV-304a
 Starfish II-405b; movement, II-283a
 Starling, bird, II-407b; on farms, VI-490a
 starlite, semi-precious stone, III-496b
 star of Bethlehem, plant, Index p. 69
 Star of India, Order of the, X-187b
 Star Slime II-408a
 Stars III-421a; apparent movement, III-28a; constellations, III-107a; distances, III-32a; fixed stars, III-27b; star clusters, III-309a; variable stars, III-32b
 stars, astrology, I-44a
 Stars and Stripes, flag, IV-149a
 state X-289a; government, X-174b
 state-coach IV-86b
 State Department, for foreign affairs, U.S.A., X-162b
 statement, account, VII-251a; budget, VII-61a
 state ownership X-288a
 States-General, of France, V-168b
 static, everlasting flower, VI-127a
 statics, mechanics, VIII-281a
 stationers IV-51b
 Stationers' Company IV-51b, 47a
 stationmaster IV-345b
 Stations, Railway, IV-432b
 Statistics VII-407a; graph presentation, VIII-190a; vital statistics, X-482a
 statues XII-410b, 275a; Venus de Milo, XII-467a; Victory of Samothrace, XII-472a
 Statute of Westminster (1931) X-431b
 stays, foundation garment, XI-187a
 steaks XI-301b
 Steam, as power, VIII-406a
 steam bug II-92b
 steam carriage IV-271a
 Steam Engine VIII-406b, 151b; *see also* steam locomotives
 steam-hammer VIII-167a
 Steaming, in cooking, XI-422a
 steam locomotives IV-241a, 239a, 348a
 steamships VIII-266a
 Steamships, History of, IV-433b
 Steam Turbine VIII-409a, 152b; efficiency, VIII-197a; Hero's toy steam turbine, VIII-150b; marine, VIII-266b
 steatite (soap-stone) III-291a
 steel VIII-235a; high-speed steel, VIII-248b; strength of, *table* VIII-47
 Steele, Sir Richard (1672-1729), English essayist, XII-336a; V-3b

- steel engraving VII-177b
 steel-frame construction, in building, VII-419b, 47a; *illus.* XII-23
Steel-making VIII-411a, 238a
 steelwork, structural, VIII-419a, 47a; *illus.* VIII-43
 Steelyard, London, medieval trading centre, VII-221b
 steelyard balance VIII-482b
 Steen, Jan (c. 1626-79), Dutch painter, XII-166b
 steeplechase, horse-race, IX-263b, 383a
 steeple-chasing, athletics, IX-166a
 Stefansson, Vilhjalmur (1879-), polar explorer, III-348b
 Stein, Carl, Baron vom (1757-1831), Prussian statesman, X-35a
 steinbok, antelope, II-18a
 stele, tomb, XII-451a
 Stems, of plants, II-408b
 stencil, office equipment, VII-315a
Stendhal, Henri Beyle (1783-1842), French novelist, V-426b
 stenography (shorthand) IV-409b
 Stephen, St. (1st cent. A.D.), first Christian martyr, V-352a; Index p. 131b
 Stephen, St., of Hungary (997-1038), I-233a
Stephenson, George (1781-1848), inventor of railway locomotive, V-427a
Stephenson, Robert (1803-59), engineer, IV-62b-64a
 Stephenson's link motion VIII-408b
 steppe, grasslands, U.S.S.R., III-198a; *illus.* III-197; Ukraine, III-449b; peoples, I-445a, 323a
Stereoscope VIII-414b; use in surveying, VIII-427a, 430a
 stereoscopic sight II-382b
 stereotyping, in printing, IV-336a; stereotype plate, VII-360a
 sterilization, in canning industry, VII-79a
 sterilization, in surgery, XI-7b
 sterilization, milk, VII-330a; of dairy machinery, VI-113b
Sterne, Laurence (1713-68), British novelist, V-428a
Stevenson, Robert Louis (1850-94), British writer, V-428b, 119a
 Stevenson screen, meteorological instrument, VIII-291b
Stewing XI-422a
 stick caterpillar II-332b
Stick Insect and Leaf Insect II-412a
Stickleback (tiddler), fish, II-412a
 stigma, of flower, II-347b
 still, distillation apparatus, VII-161b
Still-life Painting XII-438b; *illus.* XII, opp. p. 353
 stilus, ancient writing instrument, IV-117b
 stinging-nettle, plant, II-324b, 354b; family, Index p. 70
 sting-ray, sea creature, II-385b
 stink-pheasant (hoatzin) II-210a
 stinkpot tortoise II-441b
 stipendiary magistrate X-256b
 Stirling Bridge, battle (1297), V-466a
 stirrup-cup XI-271b
 stitch bird II-210b
 stitches, plain needlework, XI-400b; decorative, XI-319a
 stoat, weasel, II-463a; use to farmer, VI-489b; fur (ermine), VII-200b
 stock, flower, Index p. 64
Stock Breeding VI-426b; livestock improving, VI-8a
Stock Exchanges VII-410a
Stockholm, Sweden, III-422a; *map* III-160
 stockings, manufacture, VII-227a
 stock pot, in cooking, XI-417b
Stocks and Pillory, punishment, X-432a
Stocks and Shares VII-411a, 162b; issuing of shares, VII-253a
 Stockton and Darlington Railway, opening of (1825), *illus.* IV-348
 Stoic philosophy V-496a; X-221b; *Meditations* of Marcus Aurelius, V-292b
 stomach XI-100a; animal's, II-294a
 stomata, leaf pores, II-318b
 stone III-377a; minerals, III-289b
 stone, building, VIII-269a; strength of, *table* VIII-47; types of, VIII-269b; *see also* stone dressing
 stone, unit of measurement, VI-11a
 Stone age I-375b-378b; art, XII-356b; pottery, I-381a; roads, IV-367a; tools and weapons, I-383a
 stone-borer, shell-creature, II-319b, 320a
Stone Carving XII-439b
 stonechat, bird, II-427a
 stone-circles, prehistoric, I-303a
Stone Dressing, for building, VII-413b
Stonehenge, prehistoric monument, I-455b; III-66b; *illus.* XII, opp. p. 448
Stone Quarrying VII-414b; blasting, VIII-28a; crushing and screening, VIII-345b; quarrying machinery, VIII-345a
Stoneware, pottery, VII-417b
 stonework, building, VIII-270a
 Stopes, Dr. Marie, XI-164a
 'Storm and Stress', German literary movement XII-174a
 stooling, method of raising rootstocks, VI-182b
Stork, bird, II-413a
 stormcock (missel-thrush) II-426b
 storms III-479b
 stormy petrel, sea bird, II-316b
 Stornaway, *port*, Hebrides, Scotland, III-215b
Story-telling XI-422b
 Stourbridge Fair IX-206b
 stout, alcoholic drink, XI-3a
 stoves, cooking, XI-82a
 Stow, David (1793-1864), Scottish educationalist, X-446b
 Stow, John (c. 1525-1605), chronicler, XII-193a; IV-243b
 Strachey, Giles Lytton (1880-1932), British biographer, XII-44b
 Strafford, Thomas Wentworth, Earl of (1593-1641), V-429b
 Straight, street in Damascus, III-120a; Index p. 131b
 strain, on material, VIII-417a; strain gauge, VIII-146b
 strains and sprains XI-33a, 344a; first aid, XI-169a
 Straits Settlements, Malaya, I-291a
Strand Magazine IV-249b
 Strasbourg, France, III-174a; *map* III-173
 Stratford-on-Avon Memorial Theatre IX-403b
 strath, valley, III-461a
 stratigraphy (study of rock layers) III-182b
 stratocumulus, cloud formation, III-94a, b, 168a
 stratosphere, layer of atmosphere, III-34b, 329b; stratosphere flight, IV-188b
 stratus, cloud formation, III-94a, b
 Strauss, Johann (1804-49, father); (1825-99, son), German composers, XII-99a
Strauss, Richard (1864-1949), German composer, V-430a; XII-366b, 312b
 Stravinsky, Igor (1882-), Russian composer, XII-269b, 38b, 62b
 straw VI-169a
Strawberries VI-430a; botanical fruit, II-166a, b; propagation, VI-183a; *illus.* VI-342; strawberry eelworm, VI-125b; wild strawberry, II-357b; plant family, Index p. 65
 strawberry-tree, shrub, VI-324b
 streamer, flag, IV-148b
 streamline, hydrodynamics, VIII-217b
 Street, George Edmund (1824-81), English architect, XII-180b
Street Entertainers IX-445a
Street Games IX-447a
 street lighting X-433b
Street Markets VII-417b
 Streets IV-437b, 365a
Street Services X-432b
 street traders VII-334b
 streptomycin, drug, XI-462a
Stress and Strain, in engineering, VIII-416b, 144b
 strikes, trade union, VII-451a-454a; General Strike (1926), VII-450b, 117a; *see also* trade unions, history of
String Instruments IX-449b
 strip rolling, tinplate industry, VIII-458b
 stroke (apoplexy) XI-325b, 29a
 Stromboli, volcano, Egadi Is., Mediterranean Sea, III-403b
 Strongbow, Richard, Earl of Pembroke (c. 1130-76), III-133b
Structural Steelwork VIII-419a, 47a; steel-frame building, *illus.* XII-23
 strychnine, drug, XI-125a
Stuart, Charles Edward (The Young Pretender, 1720-88), V-430b
 Stuart, Gilbert (1755-1828), American painter, *illus.* XII-10
 Stuart, James Francis Edward (the Old Pretender, 1688-1766), V-430b
 Stubbs, George (1724-1806), English painter, V-431b; *illus.* XII, opp. p. 96; VI, opp. p. 32
 stucco buildings XII-373a
Stud Book IX 253a
 Student Christian Movement (S.C.M.) IX-140b
Stuffing, in cooking, XI-424a
 Stukeley, William (1687-1765), anti-quarian, V-336b
 stupa, Indian memorial monument, XII-207b, 323a

- Sturgeon, fish, II-414b
 Styx, river, Greek mythol., I-200b; Index p. 142b
 Submarine X-435a; *illus.* X-383; buoyancy tanks for diving, VIII-49b; use of electric motor, IV-134b
subpoena, writ, X-467a
 Subsidies, for industries, VII-419a
 subsistence economy VII-180b
 subsistence farming VI-135b
 subsoil VI-418b
 subtraction VIII-12b
 succulent plants VI-245b
 succulents, animal foods, VI-171b
 sucking fish (remora) II-343a
 Suckling, Sir John (1609-42), English poet, XII-258a
 Sudan, N.E. Africa, III-423a; administration of Gordon, V-261b
 Sudanic languages IV-6a
 'sudd', floating vegetation, III-423b, 316b
sudras (husbandmen), Hindu caste, I-96a
 suede leather VII-425b
 Suez Canal IV-440b; British occupation of canal zone, X-106a
 'Suffering Servant', theme in Hebrew literature, V-239b
 suffocation (asphyxia) XI-168a
 Suffolk, *co.*, III-157a; in co. cricket, IX-159b
 Suffolk Punch, horse, VI-240b
 suffragan bishop, in Church of England, I-127a
 suffrage, parliamentary, X-145a
 suffragettes X-494b
sufis, Moslem ascetics, I-142a; influence on Persian literature, XII-340b
 sugar: as plant food, II-318a; as human food, XI-336b; in cooking, XI-429b
 Sugar-beet VI-432a, 53a; beet-eelworm, VI-125a; government subsidy, VII-419a
 Sugar-cane VI-433b; pests, VI-465b; family, Index p. 71
 Sugar Confectionery VII-419a; sweet-making, XI-430a
 Sugar Refining VII-421a; molasses, VII-236a
 suicide X-275a
 Sui dynasty, of China, I-108a; *chart* I-107
 suite, music, XII-98a; ballet suite, XII-38a
 Sukkur, W. Pakistan, III-234a; Sukkur (Lloyd) barrage, VIII-258b; *illus.* III-233
 Suleiman the Magnificent (1494-1566), Sultan of Turkey, V-431b; I-478b; empire, Index p. 54
 Sulla, Lucius Cornelius (138-78 B.C.), Roman general and statesman, I-410b
 Sullivan, Sir Arthur Seymour (1842-1900), British composer, V-432a
 Sullivan, Louis Henri (1856-1924), American architect, XII-264b
 sulphide of iron (marcasite), mineral, III-125b
 sulphonamide drugs XI-125a
 Sulphur VII-422a
 sulphur dioxide VII-4b
 sulphuric acid VII-4a
 sultana, dried fruit, VII-216b
 Sumatra, East Indies, III-143b-145b; Indonesians, I-250a
 Sumerian Art XII-443a, 440b; I-459b
 Sumerians, ancient peoples of Mesopotamia, I-456b, 21a; *map* I-23; cuneiform writing, IV-117b; education, X-137a
 summary offence, in law, X-118a
 summer-houses XI-200b
 Sun III-424b; apparent movement, III-29b; distance from earth, III-31a; eclipse of, III-146b; solar energy, VIII-397a; sunlight, III-102b; sunshine recorder, VIII-291b
 sunbird II-215a
 sun bittern, bird, II-104b
 Sunday Schools X-437a
 sundew, insect-eating plant, II-219a
 sundials VIII-452b
 sunfish II-315b; ocean sunfish, II-32
 sunflower, plant, VI-300b
 Sung dynasty, of China, I-108a; *chart* I-107; art, XII-73a
 Sun-God I-460a
 sunn hemp, fibre crop, VI-153b
 Sunnis (Sunnites), sect of Islam, I-261a
 sun-spots III-425a
 Sun Stone (Hela stone), Stonehenge, I-456b
 Sun Yat-Sen (1866-1925), Chinese leader, V-433a
 Superb, H.M.S., X-123a
 supercharger, air compressor, VIII-88b; gas turbine, VIII-181a; petrol engine, VIII-232b
 superheater, of boiler, VIII-34a
 superhet (supersonic heterodyne), in wireless, VIII-206b
 Superior, lake, Canada/U.S.A., III-201b; iron ore deposits, VII-252a
 superphosphate, fertilizer, VI-36a, b
 Supersonic Flight IV-441b; VIII-218b
 supersonic heterodyne (superhet), in wireless, VIII-206b
 superstitution I-179b
 Supply and Demand VII-422b; market research, VII-282a
 Supply Services (Military) X-437b
 suppressor, on motor-car, VIII-442a
 suprarenal glands, *see* adrenal glands
 Supremacy, Act of (1534), I-124a
 Supreme Court, U.S.A., X-22a
 Surface Treatment, of metals, VIII-422b
 Surf-riding IX-451b
 Surgery, History of, XI-425b
 Surgery, Modern, XI-428b
 suricate (meerkat), mongoose, II-273a
 Surinam (Dutch Guiana), South America, III-207a
 Surinam Toad II-415a
 surnames IV-285a
 Surrealist Art XII-444b
 Surrey, *co.*, III-157a; in co. cricket, IX-158b-159b
 Surrey, Henry Howard, Earl of (c. 1517-47), English poet, XII-249a, 429a
 surtax X-203b
 Surveying VIII-423b; IV-252b; marine, IV-92a
 Surveying Instruments VIII-427b
 suspension bridges IV-62b; construction, VIII-41b; primitive, IV-60a
 suspension railways IV-283b
 Sussex, *co.*, III-157a; in co. cricket, IX-158b
 Sussex cattle VI-78b; *illus.* VI, opp. p. 80
 Suttee, suicide, of Hindu widows, I-460b; V-409b
 Sutton Hoo, Saxon ship burial, I-66a
 Suvárov, Alexander (1730-1800), Russian soldier, V-434a
 Svalbard (Spitsbergen), polar territory, III-420a
 swaddling clothes XI-10a, 57b
 Swahili language IV-6a
 Swallow, bird, II-415b
 Swallowtail Butterflies II-416a; caterpillar, II-417a; *illus.* II-263
 swallow-tailed moth II-255a
 swamp III-301a; reclamation, VIII-159b
 Swan II-417a
 Swan, Sir Joseph (1828-1914), British inventor, V-151a
 Swanscombe man, fossil remains, I-183a
 Swansea, port, Wales, III-471a
 sweat XI-408b; sweat glands, II-391a
 Sweden III-426b; control of alcohol consumption, X-450a
 Swedenborg, Emanuel (1688-1772), Swedish thinker, V-434b
 swedes, root crop, VI-383a-385a
 Swedes, Scandinavian people, I-460b; language, IV-394b
 sweepstakes IX-310a
 sweetbread, offal, XI-339a
 sweet briar, rose, II-357a
 sweet chestnut, tree, VI-456a; fruit, II-167a; timber, VII-223b
 Sweet Corn VI-436a
 Sweetenings, in cooking, XI-429b
 Sweet-making XI-430a
 Sweet Peas VI-436b fruit structure, II-167b; tendrils, II-91a
 sweet potato VI-468a
 Sweets and Puddings XI-432a
 sweet william, plant, VI-72a
 S.W.G. (standard wire gauge) VIII-490a
 Swift, bird, II-418a
 Swift, Jonathan (1667-1745), V-435a; *Gulliver's Travels*, XII-404b; letters, XII-242b
 Swift and Ghost Moths II-419a
 Swimming IX-452b
 Swimming Races IX-454a
 Swinburne, Algernon Charles (1837-1909), English poet, V-436a
 Swine, wild, II-419b; *see also* pigs
 swine fever VI-21a
 'swing', music, XII-228b
 swing-bridge IV-63a
 Swire Deep, Pacific Ocean, III-135b; Index p. 62
 Swiss I-462a; national dress, XI-149b
 switches, electric, XI-132b
 Switchgear, Electric, VIII-430b
 Swithin, St., III-487b; weather, III-362a

Switzerland III-428a; government, X-129b; La Tène, prehistoric lake dwellings, I-284a
 sword dances IX-233b; British, IX-237a
 swordfish II-259a; fishing, IX-63a; VI-223a
 Swordfish, aircraft, X-292a
 swords X-489a
 sycamore, tree, VI-456b; fruit, II-167a; seeds, II-379b
 Sydenham, Thomas (1624-89), English medical writer, XI-304b
 Sydney, Australia, III-428b; map III-41
 Sydney Harbour Bridge IV-442b
 syenite, rock, III-378a
 syllepsis, figure of speech, XII-148a
Sylvides, Les, ballet, XII-38b; IX-48b
 sylphite (potassium chloride) VII-14a
 symbiosis, of plants, II-293a
 symbolic animals I-167a
 Symbolists, French school of poets, XII-165b, 331a
 symbols, for communicating ideas, IV-416b, 492b
 symphonic poem, musical form, XII-366a
 Symphony XII-446a
 symphony concerts IX-148a
 synagogue, Jewish place of worship, I-278a
 synchronous motors VIII-135b
 synchrotron, particle accelerator, VIII-211b
 Syncopation, music, XII-447b
 Synge, John Millington (1871-1909), Irish dramatist, V-436b
 synod, Church council, I-91b
 Synod of Whitby (664) I-124a
 syntax, of language, IV-221a
 syphilis, venereal disease, XI-469b
 Syracuse, port, Sicily, III-404a; IV-322b
 Syria and Lebanon III-429b
 Syrian Church I-340a
 Syrians I-464a
 syrinx, ancient musical instrument, IX-339a
 syrup, for sweetening, XI-430a; maple, VI-280b

Table Dishes XI-434a
 Table Glass XI-435b
 Table Manners XI-438a
 Table Mountain, Cape Town, S. Africa, III-73a
 Tables XI-440a
 Table Setting XI-443a, 228b
 table silver XI-444a; manufacture, VII-209a
 Table Tennis (ping-pong) IX-455a
 tablets, writing, IV-495a
 table-turning, fortune-telling, IX-244b
 Table-ware XI-444a; earthenware, VII-170a; pewter, VII-337b; porcelain, VII-348a
 Taboo, prohibition, I-466a, 295b
 tabor, drum, IX-171a
 tabulating machine, accounting, VII-3a
 tachinid (bristle fly) II-54a
 Tacitus, Gaius, Cornelius (A.D. c. 55-c. 117), Roman historian, XII-192a
 tacking, sailing, IX-420a
 Tactics and Strategy X-439a; naval, X-399b

Tadjiks, Asiatic peoples, I-446a; of Afghanistan, I-3a
 Tadjikskaya (Tadjikstan), republic, U.S.S.R., III-431a
 tadpoles II-7b
 Taglioni, Maria (1804-84), Italian ballet-dancer, IX-48a
 Tagore, Sir Rabindranath (1861-1941), Indian writer, V-437a; XII-209b
 Tagus, river, Portugal, III-349b; map III-160
 Tahiti I., Pacific Ocean, III-331a, 112b; peoples, I-372a; map III-323
 taiga, forest lands, U.S.S.R., III-384b
 Taillefer, minstrel, 11th cent., IX-320b
 Tailleann Games, of Ireland, IX-455b
 Tailoring XI-446b
 Taiping rebellion (1850) III-308a
 Taj Mahal XII-449a; marble, VII-277b
 take-off, aircraft, IV-12a
 Talbot, William Henry Fox (1800-77), pioneer of photography, VII-338b
 talc, mineral, III-291a
 tallboy, furniture, XI-54a
 Talleyrand, Charles Maurice (1754-1838), French statesman, V-437b
 tallies (Exchequer notched-stick records) IV-493a; illus. VII-48
 Tallin (Reval), port, Estonia, III-158a; map III-459
 Talmud, Jewish law, I-275b
 talons, of birds, II-289a
 tamandua (lesser ant-eater) II-16b
 tambourine, percussion instrument, IX-366a
 Tamburlaine (1336-1405), Mongol emperor, V-438a; empire of, Index p. 53
 Tamils, Indian peoples, I-244b, 247a; of Ceylon, I-101a; X-76b; language, IV-200b; literature, XII-209a
 Tanagra, terracotta figures, XII-449b
 Tanganyika, E. Africa, III-142a; peoples, I-151b
 Tang dynasty, of ancient China, I-108a; chart, I-107; art, XII-73a; literature, XII-76a
 tangent, of circle, VIII-188a; in trigonometry, VIII-463b
 tangerine, orange, VI-88b
 Tangier, N. Africa, III-432a; peoples I-326b
 tango, dance, IX-51b
 tangram, puzzle, IX-396b
 tanker: aircraft, IV-166a; road vehicle, IV-278a; ship, IV-405b
 Tanks, armoured vehicles, X-440a; track, VIII-460b
 Tanning, leather, VII-424a
 Tantalus, Greek mythol., I-222b; Index p. 142b
 Taoism, Chinese philosophy, I-112b; Tao (Way of Heaven), I-420b
 Taormina, Sicily, III-403b
 Tao-Teh-King, Chinese sacred writing, I-113b
 Tapestry VII-425b; XII-153a; as furnishing material, XI-189b; carpets, XI-42a
 tapeworms II-482a; VI-315b
 tapioca, tropical plant, VI-467a; as food, XI-49a; family, Index p. 70
 Tapir, mammal, II-422a
 tap-roots II-355b

Tarantula (tarantella), spider, II-422b
 tarboosh, head-dress, I-162a
 tarses (vetches), leguminous crops, VI-263a
 tariff companies, insurance, VII-247a
 Tariffs, trade, VII-427a
 Tarim basin, desert, W. China, III-128b
 Tarlton, Richard (d. 1589), actor, illus. IX-6a
 tarmac (tarmacadam), road surface, IV-369a
 tarnishing, metal, VIII-97a
 tar oils, insecticides, VI-249a
 tarots, playing cards, IX-378a, 242b
 tarpaulin, material, VII-466b
 tarpon, herring, II-207b
 Tarquins, kings of ancient Rome, I-409b
 tarragon, herb, VI-233b
 Tarshish, Spain, I-365a
 tarsier, mammal, II-243b
 Tarsus, home town of St. Paul, Index p. 131b
 Tartans, Scottish, XI-448a
 Tartars, Asiatic peoples, I-467a
 Tartarus, Uttermost Hell, I-222b; Index p. 142b
 Tashkent, Uzbekiskaya, U.S.S.R., III-458b, 460a
 Tasman, Abel (c. 1603-59), discoverer of New Zealand, V-438b
 Tasmania, Australia, III-39a-41b; bushranging, X-64b
 Tasmanian devil, Tasmanian wolf, pouched mammals, II-261b
 Tasmanians I-468a
 Tasso, Torquato (1544-95), Italian poet and dramatist, XII-220a, 108a
 taste, sense of, II-381a, 383a
 Tate Gallery, London, XII-28b
 Tate, Maurice (1895-1956), cricketer, IX-162b
Tatler, The, periodical, XII-336a; V-3b
 Tattershall castle, Lincoln, XI-47a
 tattie-bogle, scarecrow, VI-476a
 Tatting, lace-making, XI-449a
 Tattooing XI-449b; I-925a
 tattoos, military, IX-318a
 taverns VII-88a; see also inns
 tawny owl II-305b
 Taxation X-443a; crown revenues, X-92b; income tax, X-203; local taxation, X-359a; medieval wool tax, VII-481b; tithes, VI-446b
 Taxi IV-443a
 taxis, plant movement, II-283b
 Taylor, Frederick Winslow (1856-1915), American engineer, VII-383b
 Tchaikovsky, Peter Ilyitch (1840-93), Russian composer, V-439a; XII-38a, 366b
 Tea VI-438a; XI-226b
 Teachers X-445b
 teak, tree, VI-458a; timber, VII-224a
 teal, duck, II-125a
 tears XI-152a
 Teasels VI-439a; protective structure, II-324a; family, Index p. 67
 tea-set XI-434b
 tea tortrix, moth, VI-465a
 Tea Trade VII-428a
 Technical Colleges X-448a, 140a; polytechnics, X-332a

Technicolor Films IX-456a
 Teeth and Tusks II-423a; human teeth, XI-97a
 Teheran, Persia, III-433a; *map* III-17
 Tehuantepec, Mexico, III-287a; *map* III-288a
 Tekke, tribe of Turkmenskaya, U.S.S.R., I-447a
telanthera (joy weed), plant, VI-47a
Tel Aviv, port, Israel, III-332a
 telecommunications: cable, IV-76a; telegram, IV-444a; telephone, IV-448a; wireless, IV-485b
 Telecommunications, International, IV-443b
 Telegram IV-444a; money payments by, VII-334a
 telegraphs, bush, IV-416a; semaphores, IV-401b
 Telegraphy, History of, IV-445a; wireless telegraphy, IV-486b
 Telugu language, S. India, IV-200b
 Telemachus, Greek mythol., XII-196a
 Telemachus, 5th-century monk, IX-256b
 Telepathy IV-446b
 téléphérique, mountain railway, IV-283b
 telephone VIII-294a; cables, IV-76a; VIII-50b; invention, IV-426b; international telephone service, IV-443b
 Telephone Engineering VIII-433a
 Telephone Service IV-448a
 Telephones, Mobile, IV-449b
 Teleprinter, telegraphic printer, IV-450b
 Telescope VIII-435b; III-24b; Greenwich transit telescope, III-68a
 Television, as entertainment, IX-457a
 Television, history of, IV-451b
 Television Engineering VIII-438b; cables, VIII-50b, 51b; focusing, VIII-67a; interference, VIII-207a; screen, VIII-66b
 Telex, telegraphic printer, IV-451a
 Telford, Thomas (1757-1834), civil engineer, V-440a
 Tell, William (c. 14th century), legendary Swiss hero, V-440b
 Tell el-Amarna Letters (14th cent. B.C.), I-363b
 tempera, painting method, XII-324a
 temperature, air, III-91a; of England, VIII-197b; *see also* heat
 Temperature, Measurement of, VIII-442a
 Temperature Scale, International, VIII-443a
 tempering of metals VIII-202b; *illus.* VIII-204
 Templars, Knights, I-281a
 Temple I-469a; *see also* Greek temples; Indian temples; Roman temples
 Temple Bar, London, X-85b
 Temple, Inner and Middle, inns of law, X-237a; Temple Church, I-281b
 Temple, William (1881-1944), English archbishop, V-441a
 Temperance Movement X-449a
 tenancy VI-258a; tenancy laws, X-345a; rent control, X-369a
 tenant-in-chief, feudal system, X-152b
 tench, fish, II-74a
 tender, locomotive, IV-239a
 tendrils, of climbing plants, II-91a
 Teneriffe, I., Canary Is., III-71b
 Teniers, father and son, 17th-cent. Flemish painters, XII-166b; *illus.* VII-45
 Tennessee, state, U.S.A., III-453a; *map* III-451
 Tennessee Valley Authority VIII-444a; VII-368b; soil erosion, III-407a
 Tennis ('real tennis') IX-459b; lawn tennis, IX-307a
 Tennyson, Alfred, Baron (1809-92), V-441b; *Idylls of the King*, XII-30a
 tenor-drum IX-366a
 tenor voice IX-428a; in opera, IX-350b
 tensile strength, of materials, VIII-417a; concrete, VIII-89b
 tent IX-109a
 tepee, American Indian tent, I-10a
 Terence (Publius Terentius Afer, c. 190-159 B.C.), Roman dramatist, XII-90b
 Teresa of Avila, St. (1515-82), V-443a; Index p. 136b
 Termites (white ants) II-424a; pests, VI-465a
 tern, bird, II-191b
 ternary form, in music, XII-284b
 Terpsichore, Greek goddess, I-329a
 Terracottas XII-449b
 terrapin, tortoise, II-441a
 terrier, dog, IX-194a; *illus.* IX-191
 Territorial Army X-450a
 territory, of animals, II-15a
 Terry, Dame Ellen (1848-1928), British actress, V-413b
 Tertiary age, geological, I-165b
 Tess of the D'Urbervilles, Thomas Hardy, V-209b
 testing machines: for engines, VIII-115a; for stress and strain on materials, VIII-418a
 Test Match, cricket, IX-164a
 testudines, turtle and tortoise family, II-439b
 tetanus, disease, II-351b, VI-19a
 tetany, muscular condition, XI-139b
 Tetuan, Morocco, III-302b
 Teutonic Knights I-282b
 Teutonic peoples I-189a
 Texas, state, U.S.A., III-454a; I-312b; *map* III-451
 Textile Fibres and Fabrics VII-429b
 Textile Printing VII-431a
 Thackeray, William Makepeace (1811-63), English writer, V-443b
 Thaddaeus, apostle, Index p. 131b
 Thai (Siamese) I-435b
 Thailand (Siam) III-402a; control of Malay states, I-291a
 thalamus, part of brain, XI-35b
 Thales of Miletus, Greek thinker, 6th century B.C., III-277b
 Thalia, Greek goddess, I-329a
 Thames, river, III-433b; river police, X-375a; shipbuilding, VII-387b, 390a
 Thames Conservancy Board X-113a
 Thames Estuary Race IX-346b
 Thames Rowing Club IX-76a
 Thatching VI-440a
 thaw III-214b
 theatre, *see* acting; drama; play pro-

duction; repertory theatre; licensing of plays by Lord Chamberlain, X-76a
 Theatre, Children's, IX-460b
 Theatre, History of, IX-461b
 Theatre Royal, Drury Lane, IX-463a
 Thebes, city of ancient Greece, I-167b; XII-434a
 theft X-119b
 Theism, religious belief, I-471a
 Themis, Greek goddess, Index p. 142b
 Themistocles (c. 523-c. 459 B.C.), Athenian statesman, V-444b
 Theocritus (3rd cent. B.C.), Greek poet, XII-334a
 theodolite, surveying instrument, VIII-428b
 Theodoric (A.D. 455-526), King of the Ostrogoths, I-202b
 Theophilus, N.T., Index p. 131b
 Theophrastus (c. 371-c. 287 B.C.), Greek writer, XII-137a; XI-353a
 theorbo, lute, IX-311b
 Theosophy I-471b
 Theresa, *see* Teresa
 therm, unit of measurement, VIII-181a
 Thermionic Valves VIII-445b, 137a
 thermionic valve oscillator VIII-206a
 thermocouple, thermometer, VIII-449a
 thermodynamics VIII-196a
 Thermometer VIII-448a; meteorological, VIII-290b
 thermoplastic materials VII-341b
Thermopylae, clipper ship, IV-118b
 Thermopylae, battle of (480 B.C.), V-494a
 thermosetting plastics VII-341b
 Thermostat, heat control, VIII-451a
 Theseus, King, Greek legend, I-207b; Index p. 142b
 Thessalonians, St. Paul's Epistle to, Index p. 131b
 Thimonnier, Barthélemy (1793-1859), French engineer, XI-403b
 'third party' insurance VII-246a
 Thirty-nine Articles, of Church of England, I-124b
 Thirty Years War (1618-48) V-388b; I-189b
 Thistle, Order of the, X-187a
 thistle II-379b; family, Index p. 71
 Thomas à Becket, *see* Becket
 Thomas, Dylan (1914-1954), British poet, XII-133a
 Thomas, George Henry (1816-70), American general, X-20a
 Thomas, Hugh Owen (1833-91), orthopaedic surgeon, XI-344b
 Thomas, St., apostle, Index p. 131b
 Thomas, Sidney Gilchrist (1850-85), inventor, VIII-239a
 Thomas steel process VIII-239a
 Thomson, James (1700-1748), Scottish poet, XII-295b, 388a
 Thomson, Sir Joseph John (1856-1940), physicist, V-445a
 Thomson, William, Lord Kelvin (1824-1907), physicist and engineer, V-257b
 thon, fish, II-258b; fishing, VI-55a
 Thor (Thunar), Norse God, I-344a
 Thoreau, Henry David (1817-1862), American writer, XII-296b
 thorium, element, III-37b; VIII-315a
 thorns, as plant defence, II-323b

- Three Choirs Festival IX-341a
three-dimensional films VIII-416b, 74b
three-phase A.C. system, electricity, VIII-10b
thresher, shark, II-385a
Threshing-machine VI-441b
thrift, plant, VI-380b
thrips, insect pests, VI-250b
Throat XI-451b
thrombase, enzyme, II-142a
throttle, aircraft, IV-4b
Thrush, bird, II-425b; on the farm, VI-490a
Thucydides (c. 460-c. 399 B.C.), Greek historian, V-445b; XII-191b
thugs, Indian criminal society, X-405b
'Thule', possibly Norway or Iceland, V-376b
Thunar (Thor), Norse god, I-344a
Thunder Bird, totem, *illus.* I-12
Thunder-storms III-436a
Thuringia, province, Germany, III-186b
thuya, tree, VI-460b
thyme, herb, VI-234a
thymol, oil, VI-302b
thymus gland XI-138b
thyroid gland XI-337a
Tiamat, dragon, Babylonian mythol., I-61b, 145a
Tiber, river, Italy, III-381a
Tiberius Caesar Augustus (42 B.C.-A.D. 37), Roman Emperor, I-271a
Tiberias, city on Sea of Galilee, Index p. 131b
Tibet (Bod-yul) III-438a; *map* III-21
Tibetan language IV-94b
Tibetans I-472b
Tibu, Saharan peoples, I-426b
Tibullus, Albius (c. 54-18 B.C.), Roman poet, XII-127b
ticket agencies VII-180a
ticks, parasitic creatures, II-269b; as animal pests, VI-291b
tiddler, stickleback, II-412a
Tides III-439b; flood control, VIII-164b; power projects, VIII-478a; tide gauges and recorders, VIII-222b
'tied cottages' VI-130a
'tied house', public houses, VII-42a
T'ien, god, ancient China, I-113a
Tiepolo, Giovanni Battista (1696-1770), Venetian painter, XII-467a; *illus.* XII, opp. p. 113
tiercel, falcon, II-139a
Tiflis (Tbilisi), Georgia, U.S.S.R., III-184a; *map* III-459
Tiger II-427b; hunting, IX-64b
tiger beetle II-41a
tiger-fish II-83b
tiger lily VI-265b
Tiger Moths and Footmen II-429a
tight-rope walking IX-1a
Tiglath Pileser III (745-727 B.C.), King of Assyria, I-43a
Tigris, river, Iraq, III-234b; *map* III-17; ancient civilizations of, I-20b
Tilbury Docks, Essex, IV-235b
tiles, manufacture, VII-56a, 58b; floors, XI-174a; roofs, XI-384b
Tiles, Ornamental, VII-432b
till (boulder-clay) III-379a
Tilman, H. W. (1898-), mountain-eer, IX-333b
Tilsit, Treaty of (1807), X-280a
tilth, soil, VI-106b
tilting, in medieval tournament, IX-467a
Tim, telephone time-service, VIII-457a
Timber VI-442b; hardwoods, VII-223a; softwoods, VII-402b; strength in building, *table* VIII-47
Timber Felling VI-445a; logging, VI-271b; lumber camps, VI-272a
Timber Industry VII-433b; Forestry Commission, VI-176b; woodworking machinery, VIII-490b
Timber Measurements VI-446a
timbre, of sound, III-411a
timbral, ancient musical instrument, IX-340a
Timbuktu, North Africa, III-388b; *map* III-5
Time III-441b; equation of, VIII-454b; measurement of, III-66b; microtime, VIII-347b; units, VIII-272b
time and motion study VIII-336b
time-base, radar, VIII-347b
Timekeepers, Ancient, VIII-452b
Timekeepers, Modern, VIII-455b
timer, electronic, VIII-137b
time-signals VIII-456b
Times, The, newspaper, IV-300a, 305a; VII-306a
Time-tables, railway, IV-454a
Timor, I., East Indies, I-251b; *map* III-144
Timothy, in New Testament, Index p. 131b
timothy, grass, VI-210b, 211b
timpano (tympanum), kettledrum, IX-364b
Tin, metal, VII-435b; metal ore, III-283b
tin cans VIII-458a
tinman's solder VIII-398b, 7b
tin mining in Britain VII-132a
tinned foods VII-77a
Tinplate VIII-458a
Tintoretto (Jacopo Robusti, 1518-94), Venetian painter, V-446a
tires IV-484b; manufacture of, VII-381a
Tiresias, seer, Greek mythol., XII-196a; Index p. 143a
Tirpitz, German battleship, X-435b
tisane, hot drink, XI-227b
Tishbite, native of Tishbe in Gilead, Index p. 131b
tissues, of body, XI-7b
Titanic, liner, IV-102a
titanium dioxide, in paint, VII-325a
titanium, metal, III-278 (*table*); VIII-4b
Titans, Greek mythol., I-194a; Index p. 143a
Tithes VI-446b
Tithonus, Greek mythol., Index p. 143a
Titian (Tiziano Vecelli, c. 1480-1576), Venetian painter, V-446b; XII-350b; *illus.* XII, opp. p. 336
Titicaca, lake, Bolivia/Peru, III-55a; *map* III-415
tits, birds, II-431a; on the farm, VI-490a
Titus, St. Paul's companion, Index p. 131b
Tityos, Greek mythol., I-223
Tiu (Tyr), Norse god, I-344b
T.N.T. (trinitrotoluene), chemical, VIII-156b
Toad II-432b
toad, horned, lizard, II-251b
toadflax, plant, II-284b; Index p. 68
toadstool, fungi, VI-169b
Tobacco, culture of, VI-448a; sleep movement of plant, II-284b; plant family, Index p. 66; for smoking, XI-412a
Tobacco Industry VII-436b
Tobago, I., West Indies, III-484b
Tobit and Tobias, heroes of Apocryphal book, Tobit, Index p. 131b
Tobogganing, winter sport, IX-465b
Tobruk, Libya, siege in Second World War, X-411a
toby jug XI-271b
Toe H, club, IX-466b
toddy cat, civet, II-87b
toddy, drink, VI-94b
todres, birds, II-35b
toga, Roman dress, XI-87a
Togoland, West Africa, III-208b
Tokelau, Is., Pacific Ocean, III-113a; *map* III-323
Tokugawa, clan, Japanese society, I-268b; period of art, XII-225a
Tokyo, Japan, III-442b; *map* III-245; earthquake of 1923, III-140b
Toledo, Spain, *illus.* III-419
Toleration, Act of (1689), X-373a
toleration, civil and religious, X-270a; John Locke on, V-281b; United Nations Declaration, X-320a; Quakers' views, I-388a; V-356a
tollgates IV-470b, 371a
Tolpuddle Martyrs VII-449b
Tolstoy, Count Leo (1828-1910), Russian writer, V-447b
Toltecs, peoples of ancient Mexico, I-310a; Quetzalcoatl, Toltec god, I-7a
Tomatoes, culture of, VI-449b; fruit, II-168b; diseases of, VI-450b, 341a; in trade, VII-216a; family, Index p. 66
Tom Brown's Schooldays, Thomas Hughes, V-19b
Tombs XII-451a; Egyptian, I-156b; Mycenaean, I-329b; prehistoric, I-303a; pyramids, XII-370a; Taj Mahal, XII-449a; Tutankhamen's, XII-461a; *see also* shrines
Tompion, Thomas (1639-1713), English clock-maker, VIII-81a
Tom Sawyer, The Adventures of, Mark Twain, III-292b; V-453a
Tom Thumb, dwarf, I-149a; IX-136b
tom-tom, drum, IV-416a
tone poems, symphonic poems, XII-366b
Tonga, Is., Pacific Ocean, I-372a, 466a; entertainment in, XI-180 (*illus.*), 297a, 365a; *map* III-323; *see also* Pacific Islands; Polynesians
Tonic Sol-fa system of musical notation XII-455b
Tonking, province, Vietnam, Indo-China, III-232a-233b
Tonnage, of ships, IV-454b
tonsils XI-451b
tookay (tuktoo), lizard, II-175b
tools: carpentry, VII-82; diamond faced, VII-160b; farm tools, VI-140a; fitters' tools, VIII-161b; machine

- tools, VIII-261a; prehistoric, I-381b; household repairs, XI-233b
- toothwort, parasitic plant, II-309a
- Topaz, precious stone, III-443a; oriental, III-393a
- Topiary, tree clipping, VI-450b
- tops, spinning, IX-447b; 'precession' property, VIII-193a
- tor, moorland peak, III-157a
- Torah, Mosaic law, I-220a; *see also Talmud*
- torch, electric, VIII-127a, 19b
- torch thistle II-67b
- torador, bull-fighter, IX-104a
- Tories, political party, X-329b
- tormentil, plant, II-357b
- Tornado (whirlwind) III-443b
- Toronto, Canada, III-70a; *map* III-69
- torpedo-boat X-298a
- Torpedo, weapon, X-451a
- torpedo (electric ray), fish, II-133b, 385b
- Torpid, boat-races, IX-75a
- torque, turning moment, VIII-282a, 255b; in rotocraft, IV-377b
- Torquemada, Tomás de (1420-98), director of the Inquisition, V-165b
- Torricelli, Evangelista (1608-47), Italian physicist, III-353a; Torricelli vacuum, VIII-332b
- tort, in law, X-90b
- tortoise II-441a; longevity, II-187b
- tortoiseshell butterflies II-444a; *illus.* II-63
- tortrix moth II-239b
- Torture X-452b
- Totalitarianism X-453b; political police, X-322a; Russian constitution, X-385b
- totalisator, used in betting, IX-60b
- Totemism I-474b; totem poles, *illus.* I-12; I, opp. p. 464
- Totonacs, peoples of ancient Mexico, I-309b
- Tottel's Miscellany, anthology, XII-18a
- Toucan, bird, II-433b
- touch, sense of, II-380b, 383a; XI-408b
- Toulouse-Lautrec, Henri de (1864-1901), French artist, XII-352b
- touraco (plantain eater), cuckoo, II-110b
- Tourist Industry VII-438b; hotels, VII-228b; travel agencies, IV-463a
- Tourist Trophy Races (T.T.), motor-cycling, IX-328a-329b
- Tourmaline, mineral, III-445a; as polarizer of light, III-258b
- Tournaments, medieval, X-467a; armour, X-39a
- tourniquet, first aid appliance, XI-168a
- Toussaint L'Ouverture (1743-1803), West Indian leader, V-449a
- Tower Bridge, London, IV-455a; *illus.* III-435
- Tower of London X-379a
- Tower of Silence (*Dakshma*), in Parsee religion, I-353a
- Town and Country Planning X-455b; development areas, X-132b
- town clerk X-249a
- town halls X-249a; architecture, XII-368b
- Town Planning, History of, XI-452b; flats, XI-173a; garden cities and new towns, X-172a; Georgian planning, XII-168a; streets, IV-440a
- Townshend, Charles, Viscount (1674-1738), politician and agricultural improver, VI-383b
- Towns, History of, XI-455b
- Townswomen's Guilds IX-485a
- toxophily (archery) XI-20a
- toy breeds, dogs, IX-194b
- Toynbee, Arnold John (1889-), philosopher of history, XII-194b
- Toys, History of, IX-468a; dolls, XI-103b; dolls' houses, XI-106a; in play, XI-358a
- Toy Theatre IX-470a
- trachea, in respiratory system, XI-381b
- track-circuit, railway automatic signalling, IV-136a
- Tracked Vehicles IV-455a
- Tracking Games IX-471a
- Track Mechanism VIII-460a, 117b
- Tractarians, of Oxford Movement, I-126a
- tractor VIII-117b; farm, VI-361b, 285b; *see also* tracked vehicles.
- trade VII-180a; international, VII-248b; overseas, VII-322b; markets, VII-279a; trade association, VII-125a; wholesale trade, VII-469b; retail trading, VII-375b; supply and demand, VII-422b; Board of Trade, X-55
- Trade Cycle VII-439b, 459a
- Trade Fairs VII-440b
- Trade, History of, VII-442a, 180a; Chartered Companies, VII-94b; Hanseatic League, VII-220b; Navigation Acts, VII-305a
- Trade Marks VII-446a
- Trade Routes IV-456a; American trails, 28a; Mediterranean routes, III-282a
- Trade Signs VII-446b
- Trade Union History, British, VII-448a, craft guilds, VII-143a; apprenticeship, VII-18a; Agricultural Labourers' Union, VI-137a
- Trade Unions, Modern, VII-451a
- Trade Unions, World, VII-454b
- trading account VII-51b
- Traditional Sports and Customs IX-472a
- traditional tales I-172b
- Trafalgar, Battle of (1805), X-458a
- traffic control: air, IV-381b; rail, IV-459a; road, IV-372b, 380a; sea, IV-380a
- tragacanth, gum, VII-218b
- Tragedy XII-456b; Greek, XII-186a; Shakespearean, XII-416a
- Traherne, Thomas (1637-74), English poet and mystic, XII-259a
- trailer, road, IV-277b; on farm, VI-144a
- trails, American, V-28a
- train brakes IV-57b
- Train Control IV-459a
- train couplings IV-116b
- trainer aircraft IV-11a, 14b
- train-ferry IV-146b
- Training-ship IV-460a
- trains, express: Blue Train, IV-46b; Cornish Riviera Limited, IV-112a; Flying Scotsman, IV-160a; Golden Arrow, IV-172a; Twentieth Century Limited, IV-471a
- trains, passenger, IV-343a; goods, IV-174b, 259a; suburban, IV-344a; electric, IV-133a; tube, IV-473a; *see also* locomotives
- Trains, Special Uses, royal, hospital, armoured, cattle, boat, IV-461a; breakdown, IV-59a; mail, IV-329b
- Trajan (A.D. 53-117), Roman emperor, V-450a
- Trajan's Column, Rome, XII-458a
- trammel-net, variety of fishing net, VI-160a
- tramps, X-282a, 376b; casual wards, X-495b; signs used by, IV-417a
- tramp ship IV-405b; VII-392b
- Tramway IV-462a; horsedrawn trams, IV-195b
- transatlantic cables VIII-51b
- Transcaucasia, region, U.S.S.R., III-20a
- transducer, of electrical vibrations, VIII-468b
- Transformer, Electric, VIII-460b, 227a
- transistor, crystal valve, VIII-470a
- Transjordan, E. Palestine, III-332a; *map* III-17; *see also* Arabs
- Translations XII-459a
- Transpiration of Plants II-434a
- transplanter machines VI-120a
- Transport: in industry, VII-455b; air, IV-97a; beasts of burden, IV-41a; canals, IV-79b; motor, IV-277a; rail, IV-353a; shipping, VII-392a; trade routes, IV-456a
- Transport Act (1947), nationalization, IV-277a
- Transport Aircraft (Military) X-459a
- Transport and General Workers' Union VII-451a
- Transportation X-460a
- Trans-Siberian Railway IV-355a
- Transvaal, province, S. Africa, III-412b-413b; history, X-423b
- Transubstantiation, doctrine, V-493a
- Transylvania, province, Roumania, III-74b, 384a
- trapezium, four-sided figure, VIII-187b
- Traps and Snare VI-452a
- Travancore, state, India, I-243a
- travel agencies VII-438b
- Travel-books and Guide-books IV-463b
- travellers' cheques VII-148a
- traveller's-joy (clematis), plant, II-379b
- Travelling Post Office IV-329b
- travertine, limestone, III-261b
- Trawling, fishing, VI-454a
- treacle, product of sugar-cane, VI-436a
- treadmill, punishment, X-340a
- Treason X-461a
- treasure trove X-115a
- Treasury, government department, X-284b
- Treasury of Atreus, Mycenaean tomb, I-330a
- Treaties X-462b
- Treaty ports III-399a, 443a
- trebuchet, weapon, X-43b
- Tree-creeper, bird, II-435a
- tree-houses XI-369a
- Tree Pests and Diseases VI-455a
- tree rat (grey squirrel) II-405a
- Tree Shrew (tupai) II-435b
- trees II-156b, 474a; forestry, VI-173a

- Trees, Broad-leaved**, VI-456a; tropical, VI-458a; wood, VII-223a
- Trees, Coniferous**, VI-458b; II-95a; wood, VII-402b
- tremolite, mineral, III-290b
- trench hoe (back-acter), excavating machine, VIII-119a
- trench-mortar, gun, X-45b
- trench warfare X-165b
- Trent, Council of (1545-63), I-407b
- trepan (bêche-de-mer), sea-cucumber, II-369b
- Trésaguet, Pierre (1716-96), French road engineer, IV-366b
- trellis bridge IV-60b
- Trevithick, Richard (1771-1833), English engineer and inventor, IV-271b; VIII-31b
- Trial X-464b; *habeas corpus*, X-181a; in Scottish law, X-392a
- trial of the pyx, coinage, VII-106b
- triangle, geometry, VIII-187a, 462b
- triangle, percussion instrument, IX-366b
- triangulation, in surveying, VIII-425a
- Triassic Age, geological, *table* III-139
- trichlorethylene, solvent, VII-167a
- tricycles IV-45b
- Trieste, port, Adriatic, III-42a
- trigger-fish II-326a
- Trigonometry VIII-462b
- trilobites, primitive sea-creatures, III-351b
- Trinidad, I., West Indies, III-484a; I-488a
- trinitrotoluene (T.N.T.), chemical, VIII-156b
- Trinity, Christian doctrine, I-198b
- Trinity, Brethren of the, IV-465b
- Trinity College, Cambridge, X-68a; Dublin, III-134a
- Trinity House, coastal authority, IV-465b, 230b
- Trinity Sunday I-123a
- triode valves VIII-446b, 447a
- triolet, verse-form, XII-472a
- tripe, offal, XI-338b
- Tripitaka* (Three Baskets of Tradition), Buddhist sacred writing, I-420b
- Tripoli (Libya) III-256b; port, III-257b
- Tripolitanian, region, Libya, N. Africa, III-256b
- trips, Cambridge examination, X-68a
- trptych, set of three painted panels, XII-9a; *illus.* XII-223; 150
- trireme, classical ship, IV-100a
- Tristan da Cunha, Is., Atlantic Ocean, III-445a
- Tritons, Greek mythol., I-335b; Index p. 143a
- triumph, early card game, IX-483b
- Triumvirate, First, rule of three leaders in Rome (60 B.C.), V-252b
- trochee, metrical foot in poetry, XII-468b
- Trogon, bird, II-435b
- Trojans I-476a, 336b
- Trolley-bus IV-465b
- Trollope, Anthony (1815-82), English novelist, V-450b
- trombone, wind instrument, IX-90a, 92b; position in orchestra, *diag.* IX-352; technique, IX-337b
- trooping the colour, *illus.* X-367
- Tropical Agriculture** VI-460b
- tropical animal farming VI-22a
- tropical butterflies and moths II-64b; *illus.* II, opp. p. 80
- Tropical Diseases** XI-459a
- tropical fishes IX-19a; *illus.* IX, opp. p. 32; II, opp. p. 144
- Tropical Fruits** VI-463a
- Tropical Jungles** II-436a; *illus.* II, opp. p. 208
- Tropical Pests** VI-465a
- Tropical Root Crops** VI-467a
- Tropic-bird** (boatswain) II-438a
- tropics III-91b
- tropism, movement of plants, II-283b-284b; of primitive animals, II-222b
- tropopause, layer of atmosphere, III-34b; *fig.* III-35
- troposphere, layer of atmosphere, III-34b; *fig.* III-35
- Trotsky** (Lev Davidovich Bronstein, 1877-1940), Russian revolutionary, V-450b
- Trotting Races** IX-474a
- troubadours XII-425a; IX-320b
- trousers XI-87a; oriental, XI-340a
- trout, fish, II-361b; fishing, IX-15b; 'tickling', VI-350a
- Troy** (Ilium), ancient city of Asia Minor, I-476a, 33a
- troy-weight for gold and silver IX-206a
- truce X-36a
- Trucial coast, Arabia, III-18a
- trucks: rail, IV-174b; road, IV-277a; fork-lift, VIII-278b
- truffles, fungi, XI-189a; II-170a
- trumpet, wind instrument, IX-90a, 92a; position in orchestra, IX-351
- trunk-fish II-326b
- trunk roads IV-369b
- trunks, luggage, XI-210a, 53b
- trusses, in building construction, VIII-422a
- Trust**, for money or property, X-467b
- trust, business combine, VII-125b
- Trust Houses, Ltd., VII-230b
- trustee X-467b; trustee securities, X-468a
- trusts, highway and turnpike, IV-470b
- Trust Territories X-474b
- trypanosome, protozoon, VI-466b
- Tsars of Russia I-414b
- Tsetse-fly** II-438b
- T-square, drawing instrument, VIII-109b; *illus.* VIII-110
- T.T. (Tourist Trophy) racing IX-328a
- Tuareg, peoples of N. Africa, I-477a
- Tuatara, reptile, II-439a
- tuba, wind instrument, IX-90a, 92b; position in orchestra, *diag.* IX-352a
- Tuberculosis** XI-461b, 345a; open air schools, X-429a; sanatorium, X-427a
- tuberculosis, animal, VI-19b
- tubers, underground stems, II-410b; VI-59a
- Tubes** VIII-464a, 65b
- tube trains IV-473a
- tubular bridge IV-62b
- Tudor** (16th cent.) architecture XI-240b; chimneys, XI-63b; *illus.* XI-64; windows, XI-490b; *see also* renaissance architecture
- Tudor Royal House (Henry VII to Elizabeth I) V-218b, 154a
- Tugs** IV-466b; canal, IV-39a
- Tug of War** IX-474b
- tui (parson bird) II-210b
- Tuileries, palace in Paris, XII-246b
- Tuke, William (1732-1822), philanthropist, XI-310a
- tuktoo (tookay), lizard, II-176a
- Tule, big tree of, Mexico, II-157a
- tulip, plant, VI-59a-61a; Index p. 69
- Tull, Jethro (1674-1741), agricultural improver, VI-8b, 389b
- Tummel Valley, Scotland, power stations, *illus.* VIII, opp. p. 224
- tumours XI-41a, 325b
- tumuli, ancient burial mounds, I-65a
- tuna (tunny), fish, II-258b; fishing, VI-54b
- tundra, desert region, U.S.S.R., III-384b; of Canada, I-93a
- tungsten, metal, VIII-287b; tools made from, VIII-248b
- tung tree VI-301b; oil, VII-325b, 322a
- Tungus, tribes of Siberia, U.S.S.R., I-438b; languages, IV-470a
- tunicate (sea squirt) II-376b
- tuning, radio, VIII-357a; heterodyne method, VIII-206b
- Tunisia**, N. Africa, III-446a; X-105b; *map* III-5
- Tunnelling** VIII-465b
- tunny (tuna), fish, II-258b; fishing, VI-54b
- Tunnels** IV-467a; of mountain passes, IV-282a
- tupai (tree shrew) II-435b
- Tupi-Guarini, American Indian peoples, I-9a; languages, IV-27a
- turbine: gas, VIII-181a; steam, VIII-409a; water, VIII-475b
- turbines: aircraft (airscrew turbine), IV-8b; railway locomotives, IV-167b; road vehicles, IV-374a; ships, VIII-266b; IV-436b
- turbine power measurement VIII-115b
- Turbinia**, ship, IV-437a; *illus.* VIII-153
- turbo-alternator, power generator, VIII-329b-330b, 123a
- turbo-generator VIII-153a
- turbojet (pure jet) engine, aircraft, IV-8b; *illus.* VIII-182
- turbot, flat-fish, II-152a
- turbulence, aerodynamics, VIII-218a
- tureen XI-435a; *illus.* XI, opp. p. 416
- Turgenev, Ivan Sergeivich (1818-83), Russian writer, V-451b
- Turkey** III-447a; in First World War, X-160a; *see also* Turks
- Turkeys**, rearing, VI-468b
- Turkeys**, wild, II-439a; brush turkey, II-56b
- turkey-vulture II-95a
- Turkish and Allied Languages** IV-470a
- Turkish art XII-213a
- Turkish bath XI-354b
- Turkish carpets VII-85b; XI-42b
- Turkish (Ottoman) Empire I-478b; *map* Index p. 53; Turkish influence in Europe, III-51a, 61a, 33a
- Turkmen** (Turkmen), peoples of U.S.S.R., I-447a

- Turkmenkaya (Turkmenistan), *republic*, U.S.S.R., III-448a
- Turks I-477b; battle of Lepanto (1571), X-395b; 'Young Turks' movement, X-406a
- turmeric, spice, VI-468b, 424a
- Turner, Joseph Mallord William (1775-1851), English painter, V-451; XII-237a; *illus.* XII-343
- Turners Company VII-107b
- turnips VI-383a; pests, VI-52a, 62a
- Turnover, in business, VII-456a
- Turnpikes IV-470b
- turpentine, oil, VII-320b
- Turpin, Dick (1705-1739), highwayman, IV-193a
- Turquoise, precious stone, III-448b
- turtle dove II-321a
- Turtle-fishing VI-470a
- Turtles and Tortoises II-439b
- tusks, animal, II-423a
- Tussaud's, Madame, waxworks exhibition, IX-483a
- Tussock Moths II-442a
- Tutankhamen (Tutankhaten, c. 1358-1340 B.C.), King of Egypt, V-6a
- Tutankhamen's Tomb XII-461a; I-156b; *illus.* I-158b
- 'tuyeres', of blast furnace, VIII-26a
- T.V.A., *see* Tennessee Valley Authority
- Twain, Mark (1835-1910), American writer, V-452b
- twayblade, orchid, II-300b
- Tweed Bridge, Kelso, Scotland, IV-62a
- tweeds IX-127b
- Twelve Tables, of Roman law, I-410a; X-235a
- Twentieth Century Limited Train IV-471a
- twenty-plume moth II-326a
- twite, bird, II-145b
- Two Thousand Guineas horse-race IX-290b
- Tyburn gallows X-71b
- Tyler, Wat (d. 1381), rebel leader, V-453b
- Tylers and Bricklayers, Worshipful Company of, VII-57a
- Tyndale, William (c. 1494-1536), translator of the Bible, XII-459b
- Tynwald, parliament, Isle of Man, III-238b
- type, printing, VII-360b; IV-333b
- type-setting, hand, VII-358a; mechanical, VII-359a
- Typewriter IV-471b; automatic, VII-315a
- typhoid fever XI-145a
- typhoon (hurricane), wind-storm, III-221a
- typhus fever XI-145a
- typographic printing VII-357b
- typography, printing, VII-360b
- Tyr (Tiu), god, Norse mythol., I-344b
- tyrannosaurus, prehistoric animal, III-352b
- Tyre, *port*, Lebanon, III-430b; Phoenician seaport, I-363b-365a; Index p. 131b
- tyres IV-484b; manufacture, VII-381a
- Tyrolese alps III-10b; Tyrol dances, IX-232b, 235a
- U-boat (Unterseeboot) X-435b
- Uccello, Paolo (1397-1475), Florentine painter, XII-155a
- udad (barbary sheep) II-386b
- Uffizi art gallery, Florence, III-167b
- Uganda, East Africa, III-449a, 143a; Owen Falls Scheme, VIII-320a; peoples, I-151b
- Ugarit (Ras-Shamra), city state of ancient Syria, I-363b-364b
- Uitlander, Boer term for foreigner, X-424a
- Ukraine, *republic*, U.S.S.R., III-449b
- ukulele (Hawaiian guitar) IX-312a
- Ulfilas, 4th-cent. bishop, I-321b
- Ulster (Northern Ireland) III-236a; government, X-301a
- Ultima Thule, *see* Thule
- ultramarine, paint, III-254b
- Ultrasonics, range of vibrations, VIII-468a
- ultra-violet rays III-359a
- Ulysses (Odysseus), hero of Greek legend, XII-196a; Index p. 141b
- umbelliferae, flower family, Index p. 65
- umbilical cord, in human reproduction, XI-22b
- umbrella bird II-84a
- Umbrellas XI-464a
- uncertainty principle, physics, III-357a
- uncial script *illus.* IV-180
- undercarriage, aircraft, IV-4b
- Underclothes XI-465a; children's, XI-60b
- Underground Railway IV-473a; automatic signalling in, IV-33b
- underground stems II-410b; VI-59a
- underpinning, buildings, VIII-394b
- underwing moth II-290a
- underwriters, finance, VII-253a; insurance, VII-247a; Lloyd's, IV-236a
- Unemployment VII-458a; employment exchange, X-147b; trade cycle, VII-439b
- Unemployment Assistance Board X-469b
- Unemployment Insurance X-469a
- UNESCO X-470a
- unicellular (single-celled) animals II-334a
- Unicorn I-481a
- Uniforms, Military, X-471a; *illus.* X, opp. p. 48
- Union, Act of: Wales and England (1536), I-487a; Scotland and England (1707), X-393b
- Unionist party, of Northern Ireland, X-301b
- Union Jack IV-149a
- Union of Socialist Soviet Republics, *see* U.S.S.R.
- Union of South Africa, *see* South Africa.
- Unitarian, religious belief, I-481b
- unit construction, engineering, VIII-332a
- United Nations Organization X-473b, 213b; Declaration of Human Rights, X-270b; Hague Court, X-181b; international police force, X-217a; refugee relief, X-363a; 'specialized agencies', X-214a; *see also* International co-operation
- United States of America III-451a; peoples of, I-15a; American Indians, I-9b; Negroes, I-13a; constitution, X-20a; education, X-22a; art, XII-9b; literature, XII-14b; War of Independence, X-25b; Civil War, X-19a; national flag, IV-149a
- 'unities' (classical rules), of drama, XII-109b, 244b
- unit operations and processes, in chemical engineering, VIII-69b
- univalve shell-creatures II-271a
- Universal Postal Union IV-328b
- Universe III-454b
- universities: American, X-24a; Cambridge, X-67a; colonial, X-100b; London, X-254b; Oxford, X-305b; provincial, X-346b; Scottish, X-389b
- Universities, History of, X-475a
- University X-478a; examinations, X-148a; parliamentary representation, X-145b; student life, X-480a
- University Extension Movement X-5a
- unleavened bread XI-37b
- U.N.R.R.A. (United Nations Relief and Rehabilitation Administration) X-215b
- 'untouchables', of Hindu society, I-98b; campaign of Gandhi, V-180b
- Upanishads, Hindu sacred writings, I-420a
- Upholstery VII-459b; XI-51a
- Ur, ancient city of Asia Minor, I-42a; III-234b
- Uralian languages IV-147a
- Ural Mountains, U.S.S.R., III-456a; peoples, I-438b
- Urania, Greek goddess of astronomy, I-329a
- uranid moths II-66a
- Uranium, metal, III-456b; decay process, III-37b; nuclear energy from, VIII-313b; work of the Curies, V-115a
- Uranus, Heaven, Greek mythol., I-194a; Index p. 143a
- Uranus, planet, III-343b; *tables* III-340
- Urban District Council X-242b
- urchin, sea-creature, II-377a
- Urdu language IV-200a
- urea-formaldehyde resins VII-219b
- Uriah the Hittite V-127b; Index p. 132a
- Uriel, archangel, I-25a
- urine XI-6a
- Ursa Major (Great Bear), constellation, III-109a; *illus.* III-107
- Ursa Minor (Little Bear), constellation, III-109a; *illus.* III-107
- Ursula, St., Index p. 136b
- urticaceae, plant family, Index p. 70
- Uruguay, *republic*, S. America, III-457a
- Uruguayans I-482b
- U.S.A., *see* United States of America
- U.S.A. Fraternities, American student societies, IX-475b
- Usk, Thomas, 14th-cent. writer XII-8b
- U.S.S.R. (Union of Socialist Soviet Republics) III-458a; peoples of, I-413b; constitution, X-385b; revolution, X-387a; art, XII-392b; language, IV-420a; literature, XII-395a; collective farming, VI-97a
- U.S.S.R., republics: Armenia, III-20a; Azerbaijan, III-44a; Byelorussia, III-64b; Estonia, III-157b; Finno-

- Karelia, III-165b; Georgia, III-183b; Kazakhskaya, III-248b; Kirgiskaya, III-251a; Latvia, III-254b; Lithuania, III-262a; Moldavia, III-294b; R.S.F.S.R., III-384b; Tadzhikskaya, III-431a; Turkmenkaya, III-448a; Uzbekiskaya, III-458b
- Usury VII-460b
- Utah, U.S.A., III-454a; I-328b; *map* III-451
- uterus (womb) XI-22b
- Uther Pendragon, legendary British king, I-144b
- Uthwatt Committee, town and country planning, X-456b
- Utilitarian philosophy V-309a
- Ut-napishtim, Babylonian mythol., I-62a
- Utopia, Sir Thomas More, V-320b
- Utrecht, treaty of (1713), V-296a
- Utrecht, Union of (1579), V-486b
- Uzbekiskaya (Uzbekistan), *republic*, U.S.S.R., III-458b; Uzbeks, I-446b, 3a
- V1, flying bomb, X-178b
- V2, rocket bomb, X-178b
- vaccination XI-253b; V-242b; work of Pasteur in developing vaccines, V-351a
- vacuum brakes, railway, IV-58b
- vacuum cleaner XI-66a
- V.A.D. (Voluntary Aid Detachment) X-361b
- vagabonds X-375b; street entertainers, IX-445a
- Vagrancy Act (1824) X-376b
- vagus nerve XI-100b
- valency, of chemical elements, III-83b
- Valentines IX-472b
- Valera, Eamon de (1882-), Irish statesman, I-257a
- Valéry, Paul (1871-1945), French poet, XII-165b
- Valetta, Malta, III-273b
- Valhalla, 'hall of the slain', Norse mythol., I-215b, 345a
- Valiant, aircraft, X-55b
- Valkyrie maidens, Norse mythol., I-215b; opera by Wagner, XII-376a
- Valleys III-461a
- Valois, Ninette de, ballet artist (1898-), IX-48b
- Valparaiso, Chile, S. America, III-85b; *map* III-415
- Value and Price VII-462a
- valve, principle of, VIII-446a
- valve amplifiers VIII-448a, 139a
- valve oscillators VIII-139b
- Valves, Crystal, VIII-470a
- valves, of petrol engine, VIII-229b
- valves, thermionic, VIII-445b; invention of, IV-428a
- Vampire, aircraft, *illus.* X-10
- vampire, bat, II-31b
- Vanbrugh, Sir John (1664-1726), dramatist and architect, V-454a
- Vandals, Germanic peoples, I-483a
- Van de Graaff particle accelerator VIII-209b
- Van Diemen's Land (Tasmania, Australia) I-468a
- Van Dyck, Sir Anthony (1599-1641), Flemish painter, V-455a
- Vanessinae, butterflies, II-444a
- Vanguard, H.M.S., X-53a
- vanilla, spice crop, VI-424a; flavouring, XI-174a
- vanishing point, in perspective drawing, VIII-150b
- Vanity Fair, Thackeray, V-444a
- vapour, properties of, VIII-176a
- vapourer moth II-442a, b
- Varangians, Viking peoples, I-414a
- Vardhamana (Mahavira), c. 6th cent. B.C., founder of Jain religion, I-266a
- variation form, music, XII-285a
- Varicose Veins and Haemorrhoids XI-467a
- variety shows IX-341b; variety programmes, radio, IX-102a
- Varna, Hindu caste, I-95b
- varnishes VII-325b; resins used, VII-218b; waterproofing, VII-466a
- Vasa, House of, Swedish royal family, I-460b
- Vasari, Giorgio (1511-74), Italian author, XII-43b
- Vashti, Queen, wife of Ahasuerus of Persia, Index p. 132a
- vassalage, feudal bond, X-151b-152b
- Vatican, Rome, XII-462a
- Vatican Library IV-475a
- vaudeville, entertainment, IX-341b
- Vaudois, Protestant community, I-486a
- Vaughan, Henry (1621-95), British poet, XII-258b
- Vaughan Williams, Ralph (1872-), English composer, XII-398b
- Vault, in building, XII-463a, 384b
- vaulting, athletics, IX-36a
- Vauxhall Gardens IX-359a
- V.C. (Victoria Cross) X-262a, *illus.* X-261
- veal XI-301b
- Vecellio, Tiziano (Titian, c. 1480-1576), Venetian painter, V-446b
- vector, line, geometry, VIII-189b
- Vedda, peoples of Ceylon, I-483b
- Vedic language IV-393a; hymns (Rig-Veda), I-419b
- Vega, Lope de (1562-1635), Spanish dramatist, XII-108a
- Vegetable VI-471a
- Vegetable Garden VII-471b
- vegetable oils VII-320a
- Vegetables XI-467b; boiling, XI-29b; canning and bottling, XI-183a; dried, XI-48b; market gardening, VI-280b; trade, VII-214b
- vegetarianism XI-184b
- vegetative propagation of plants VI-342b; fruit, VI-181a
- veins, of human body, XI-28b
- Velazquez, Diego (1599-1660), Spanish painter, V-455a; XII-350b; painting method, XII-326b; *illus.* XI-57; XII, opp. pp. 352, 433
- veld, South African grasslands, III-412a-413a
- Velde, van de, Willem (the Elder, 1611-93); Willem (the Younger, 1633-1707); Adriaen (1636-72), family of Dutch painters, XII-236b, *illus.* X-347, 397
- Veli, Norse god, I-343a
- vellum, writing material, IV-309b
- velocipedes, bicycles, IV-45a
- velvet VII-431a; XI-190b
- veneer, woodwork, VII-345b, 75a; marquetry, VII-243a
- Veneral Diseases XI-469b
- Venetian Painting XII-465a, 350a
- Venezuela, *republic*, S. America, III-462b
- Venezuelans I-484b
- Venice, Italy, III-463a; *map* III-160; glassmaking, VII-206a; gondolas, IV-174; lacemaking, VII-260b, 262b; as a republic, X-88a, 304a; as trading power in the middle ages, VII-444b
- venison XI-364a
- Ventilation VIII-470a; in coal-mines, VII-113a; VIII-305b
- Ventilation, Domestic, XI-470a
- Ventriloquism IX-476a
- venturi principle, water flow, VIII-215b
- Venus, Roman goddess, Index p. 143b; *see also* Aphrodite
- Venus, planet, III-341b
- Venus de Milo, sculpture, XII-467a
- Venus's fly-trap, insect-eating plant, II-219b
- Verandahs XI-470b
- Verdi, Giuseppe (1813-1901), Italian composer, V-457a; XII-311b
- Verdun, France, in First World War, X-160a
- Vereeniging, Treaty of (1902), I-442b
- very lights, signals, IV-233b
- Vermeer, Jan (1632-75), Dutch painter, V-457b; forgeries, XII-158b
- vermicelli, paste, XI-350a
- Vermin, agricultural pests, VI-474b; household pests, XI-229a
- Vermuyden, Sir Cornelius (c. 1595-c. 1683), Dutch engineer, VIII-159b
- Vernier scale VIII-472b
- Veronese, Paul (1528-88), Venetian painter, XII-466b
- Verrocchio (1435-88), Florentine painter, V-271a
- Versailles, palace, XII-467a; gardens, VI-195a; Salle de la Guerre, *illus.* X-273
- Versailles (Paris), Peace of (1783), X-26b
- Versailles, Treaty of (1919), X-160b; *map* of Europe after, Index p. 58
- verse, comic, XII-92a
- verse-drama, of 20th cent., XII-110b
- Versification XII-468a
- vers libres (free verse) XII-270b
- vertebrae, of spine, XI-30b
- vertebrates (animals having backbones) II-10a, 9b; classification of, II-89b
- 'vertical' system, of manufacture, VII-486b
- Verulam, city of Roman Britain, IX-411b
- Verzelini, Jacopo, 16th-cent. Venetian glassmaker, XI-437a
- Vesalius, Andreas (1514-64), anatomist, V-458a
- Vespucci, Amerigo (1451-1512), Italian navigator, III-317b
- Vesta, Roman goddess, I-201b; Index p. 143b

vestal moth II-255a
 Vestal Virgins, priestesses, Roman religion, I-411b; VII-19b
 vestry meeting, local government, X-311a, 246b
 Vesuvius, volcano, S. Italy, III-464a, 467a; Pompeii, XII-348b
 vetches (tares), plants, VI-263a; family, Index p. 68
 veterinary surgeon VI-16b
 vetiver, tropical grass, VI-302b
 veto: House of Lords, X-196a; U.N.O., X-473b; of American President, X-21a
 viaduct, bridges, IV-60b; railway, IV-63b
Vibration, Mechanical, VIII-473b
viburnum, flowering shrub, VI-165b
 vicar, in Church of England, I-128a
Vicar of Wakefield, Oliver Goldsmith, V-195b
 Victor Emmanuel II (1820-78), King of Italy, I-264b
 victoria, carriage, *illus.* IV-87
 Victoria, lake, E. Africa, III-449a, 142b; *map* III-5
 Victoria (1819-1901), Queen of England, V-458b; *illus.* V, opp. p. 432
 Victoria, state, Australia, III-40a
 Victoria and Albert Museum, London, XII-28b, 210b
 Victoria Cross (V.C.) X-262a; *illus.* X-261
 Victoria Falls, N. Rhodesia, III-465a; bridge, IV-65a
 Victoria Jubilee bridge, Montreal, Canada, III-390a
 Victorian houses XI-242b, 388b; *illus.* XI-195; furniture, XI-196a; Gothic revival, XII-180b; interior decoration, XI-262b
 Victorian theatre IX-463b, 8a
Victory, H.M.S., IV-475b
 Victory of Samothrace, sculpture, XII-472a
 vicuña, mammal, II-252a
 Vic-Wells ballet company IX-49a
 Vienna, Austria, III-465b; *map* III-160
 Vienna, Congress of (1814-15), X-281a
 Viet-nam, *republic*, Indo-China, III-232a
 Vikings (Norsemen) I-137a, 345b; Danish invasions of Britain, V-10b; Varangian invasions of Russia, I-414a; *see also* Norse myths
 Viking Ships IV-476b
 Villages, History of, XI-471a
 vassal class, in feudal system, VI-258a; XI-294b
 Villeneuve, Pierre Charles Jean Baptiste Sylvestre de (1763-1806), French admiral, X-458b
 Villiers, George, Duke of Buckingham (1592-1628), V-83a
 Villon, François (b. 1431), French poet, V-460b; XII-164a, 248b
 Vilna, Lithuania, III-262a
 vinaigrette, perfume box, *illus.* XI-354
 Vincent de Beauvais, 13th-cent. French author, XII-129b
 vine-cutter, beetle, II-81b; as agricultural pest, VI-51b
 Vinegar XI-475a

vines, climbing plants, VI-92; grape vines, VI-207b
 Vinland, land discovered by Vikings, I-345b
 Vintners Company VII-107a
 Viol, string instrument, IX-477a
 viola, string instrument, IX-451a; in orchestra, IX-352a
 violaceae, plant family, Index p. 68
 violin IX-451a; in orchestra, IX-352a
 violoncello, string instrument, IX-451a; in orchestra, IX-352a
 Vipers II-446a
 viper's bugloss, plant, Index p. 67
 Virgil (Publius Vergilius Maro) (70-19 B.C.), Roman poet, V-461a; *The Aeneid*, XII-134a; V-461b; *Eclogues*, XII-334b; *Georgics*, XII-295a
 virginal, keyboard instrument, IX-302b
 Virginia, state, U.S.A., III-453a; *map* III-451; colonization, V-380a
 Virgo (Virgin), constellation of Zodiac, III-108b
 Virus, organism, II-447b
 virus diseases: of humans, XI-250b, 252a; influenza and common cold, XI-253a; poliomyelitis, XI-360a; smallpox, XI-143a; of animals, VI-20a; of plants, VI-341a
 viscacha, rodent, II-85b
 viscose process, rayon manufacture, VII-372b
 viscount, peer, X-316b
 viscous fluids VIII-217a, 218a
 Vishnu, Hindu god, I-199b
 Visigoths, Germanic peoples, I-202a, b
 visions I-193a, 368b
 visor, armour, X-38a; *illus.* X-37
 Vistula, river, Poland, III-344b; *map* III-160
 Vital Statistics, population, X-482a
 Vitamins XI-475b; deficiency diseases caused by shortage, XI-96b; in vegetables, XI-29b; table of foods supplying, XI-185; in animal feeding, VI-170b
 vitriol, acid, VII-4a
 Vittoria, battle (1813), V-478a
 Vittoria (Tomás Luis de Victoria) (c. 1535-1611), Spanish composer, XII-17a
 Vladivostok, port, U.S.S.R., III-466b; *map* III-459
 Vlaminck, Maurice (1876-1954), painter, XII-266b
 Voguls, Siberian peoples, I-438b
 voice XI-100b; singing, IX-427a
 Volapük, artificial language, IV-208b
 Volcanoes III-466b
 Vole, rodent, II-447b; as farm pest, VI-476b
 Volga, river, U.S.S.R., III-468b; *map* III-459
 Volga canal III-469a
 Volta, Alessandro (1745-1827), Italian physicist, VIII-129a
 voltage, of electric current, VIII-129a, 273a; alternating current, VIII-9b; of British power lines, VIII-191b
 Voltaire (François Marie Arouet, 1694-1778), French writer, V-462a
 voltmeter VIII-125a
 volume, units of measurement, VIII-

272b; dilatometer, measuring instrument, VIII-156a
 Voluntary Schools X-483b
 volunteer forces, army, X-41a
 voting X-145a
 voussours, of arch, VIII-48a
 vulcanization, of rubber, VII-380b
 Vulgate, version of Bible, XII-459b
 Vulture, bird, II-449a
 W.A.A.C. (Women's Auxiliary Army Corps) X-492b
 W.A.A.F. (Women's Auxiliary Air Force) X-492b
 Wade, George (1668-1748), English soldier, road-building, IV-368b
 wadi, watercourse, III-130a, 15b
 Wading Birds II-451a
 waffles, batter cakes, XI-399b
 Wages VII-463a; collective bargaining and strikes, VII-451a; effect on rate of exchange, VII-371b; in middle ages, VII-181b, 64b; in nineteenth century, VII-166b; XI-111b; wage regulation, VII-448b
 Waghenae, Lucan Janszoon (b. c. 1550), Dutch mapmaker, IV-93a
 Wagner, Richard (1813-83), German composer, V-464a; XII-311b; *The Ring of the Nibelung*, XII-376a; romanticism, XII-87a
 wagon IV-88b; farm wagon, VI-143a
 wagonette, carriage, *illus.* IV-87
 Wagtails and Pipits II-453b
 Waifs and Strays Society X-78b
 Wailing Wall, Jerusalem, *illus.* I-278
 wainscot moth II-290a
 Waitangi, Treaty of (1840), I-340b
 Waits and Carol Singers IX-478a
 Wakefield, Edward Gibbon (1796-1862), colonial administrator, V-465b
 Wakefield prison X-341a
 Wakes, summer festival, IX-478b
 wakes, funeral, I-140a
 Waldensians, Protestant sect, I-486a
 Waldo, Peter (12th cent.), founder of Waldensian sect, I-486a
 Wales III-470a; Eisteddfodau, IX-341b; slate mining, VII-398b; University, X-491b
 Walker Cup, golf, IX-261b
 'walkie-talkie' wireless IV-450a
 Walking IX-479a
 walking-fish (mud-skipper) II-180a
 Walking Races IX-480a
 Walking-sticks XI-478a
 wallaby, kangaroo, II-228a; fur, VII-201b
 Wallace, Alfred Russell (1823-1913), British naturalist, V-466a
 Wallace, Sir William (c. 1274-1305), Scottish patriot, V-466a
 Wallace Collection, London, XII-29a
 'Wallace line', animal and plant distribution, II-11b
 Wallachia, province, Roumania, III-60b
 wall butterfly II-55b
 wall-creeper, bird, II-435a
 Wallenstein, Albrecht von (1583-1634), soldier, V-466b
 wallflower, plant, VI-54a; family, Index p. 64

- Wall of China III-202b
 Wall of Death, motor-cycling feat, IX-481a
 Wall Game, Eton football, IX-204a
 wall-hangings XI-93b
 walling VI-230a
 Walloons, Belgian peoples, I-67b
 wall-paintings: Babylonian, XII-35a; early Christian, XII-118a; frescoes, XII-325a; of Giotto, XII-214b; V-190b; of Medieval churches, XII-386b
 Wallpapers, History of, XI-479a
 walls, boundary, VI-230a
 Walls, house, XI-481a; damp, XI-96a; plastering, XI-357a; steel-frame building, VIII-419b
 Wall Street, New York, financial centre, III-311b
 walnut, nut, VI-295a; tree, VI-458a; wood, VII-224b, 74b
 Walpole, Horace, Earl of Orford (1717-97), English author, XII-390a
 Walpole, Sir Robert (1676-1745), English statesman, V-468b
 walrus, seal, II-370a
 Walsingham, Sir Francis (c. 1530-1590), V-299b
 Walton, Izaak (1593-1683), English author, V-469a; XII-295b
 waltz IX-50b; XII-99a
 wampum, beads, IV-492b; as money, VII-357a
 Wandering Jew, plant, VI-246a
 Wandsworth prison X-60a
 wapiti, deer, II-118b
 War, History of, X-485a; land warfare, X-227a; sea warfare, X-397b
 War, Secretary of State for, X-488b, 268a
 War and Peace, Tolstoy, V-448b
 war and weapon dances IX-233b
 warble fly VI-168a
 Warblers, birds, II-454b; migration, II-267a
 Ward, Frank (d. 1870), Australian bush-ranger, X-65b
 ward, local government division, X-243a
 wardrobe XI-56a
 Warehouses VII-465a
 war horses IV-193b
 War Office X-488a; *illus.* X-95; military staff, X-430a
 warp, thread, VII-489a
 warranty, in contract law, X-92a
 Warrior, H.M.S., X-52a
 warrior barge IV-39b
 war savings X-289a
 Warsaw, Poland, III-471a; *map* III-160
 warships X-297a; *illus.* X-383
 wart hog II-421b
 warts XI-408a
 Warwickshire co., England, III-156a; county cricket, IX-158b, 159a
 Was, Burmese peoples, I-85a
 washing: laundry, XI-278a, 280a; personal hygiene, XI-354
 washing-soda VII-14b; detergent, XI-67a
 Washington, Booker (c. 1859-1915), U.S. Negro leader, V-469b; I-15a
 Washington, George (1732-99), 1st President of U.S.A., V-469b; *illus.* XII-10
 Washington, D.C., U.S.A., III-471b; *map* III-451; Congress Library, IV-111a
 Washing Up XI-483b
 Wasps II-455b
 'wassail bowle', drink, XI-3a
 Wat, Buddhist temple, I-83a; Wat Po, III-47b
 watch, at sea, X-384b
 watches VIII-80b-82a; watch jewel, VIII-21b; watch spring, VIII-404b
 water: chemical formula, III-83a, b; displacement, VIII-48b; flow, VIII-215a; hydraulics, VIII-214b; pressure, VIII-48a; purification, VIII-479a; softening, VIII-480a; *see also* water vapour; wells and springs
 Water, Domestic, XI-484b
 water, nutrition, XI-337b; animal food, VI-171a; plant food, II-294b, 355b
 water beetle II-40b
 Water-boatman, bug, II-458b
 waterbuck, antelope, *illus.* II-17
 water-clock VIII-453a
 water-closet XI-394a, 231a
 Water-colours, painting, XII-473a, 326b
 Watercress VI-477a
 waterfalls III-372b; Kaieteur Falls, III-248a; Niagara, III-314b; Victoria, III-465a; reversible waterfall, III-441a
 water-flea (daphnia) II-109b
 Water Gardens VI-478a
 water-gas VIII-174a, 180a
 water-glass, manufacture of, VII-14b
 Waterguard Service, of seaports, X-126b
 watering, irrigation, VI-253b
 water lily VI-479a, 478a; II-245a; seed dispersal, II-380b; family, Index p. 64
 Waterloo, battle of (1815), X-281a; V-478b
 watermark, of paper, VII-329b
 water measurer (pond skater), insect, II-59a
 water-mill VIII-475b; flour-mill, VII-192b
 water opossum (yapock), mammal, II-298b
 water organ IX-340a
 Water-plants II-459b
 Water Polo IX-481b
 Water Power VIII-475a; kinetic and potential energy, VIII-142a
 Waterproofing VII-465a
 water rat (water vole) II-448b
 Water-scorpion, bug, II-461b
 Water Ski-ing IX-482b
 water-spider II-105a
 Waterspout III-472b
 water striders, insects, II-59a
 Water Supply VIII-478a; X-350b; domestic, XI-484b; farm water supplies, VI-138b
 Water Supply, History of, XI-485b
 water-table, rock, III-483a
 water-tower VIII-480b
 water turbine VIII-475b
 Water-vapour, in atmosphere, III-473a
 water-veneer moth II-85b
 water-wheel VIII-342a
 waterworks VIII-478b; Metropolitan Water Board, VIII-292b
 Watling Street, Roman road, IV-129b
 Watson, John Broadus (1878-), American psychologist, XI-373b
 Watson-Watt, Sir Robert (1892-), inventor of radar, VIII-347a
 Watt, James (1736-1819), British engineer, V-472a; drawing reproduction method, VIII-111a; steam engine, VIII-151b-152b
 watt, unit of measurement, VIII-273a
 Watteau, Antoine (1684-1721), French painter, V-473b; XII-378a
 watt-hour meter VIII-126a
 wattle-and-daub, building, XI-482a; VI-101b
 wattle hurdles VI-246b
 Watts, Isaac (1674-1748), English hymn-writer and preacher, XII-197b, 69a
 wave analyser, electronic instrument, VIII-139b
 waveguides, for high-frequency electric currents, VIII-205a
 Wave-lengths, wireless, IV-481a, 486b; high-frequency currents, VIII-204b; short wave-lengths, IV-410b; television wave-lengths, IV-453a; transmission, VIII-356b-360b; tuning, heterodyne method, VIII-206b; wave-lengths and frequencies for different purposes, *table* VIII-360
 wave mechanics, theory of atomic physics, III-357a
 Wave Motion III-474a; heat waves, III-213b; light waves, III-258a; sound waves, III-409a
 Waverley novels, Scott, V-406b
 waves, electro-magnetic, III-359a; discovery of wireless waves, IV-486a
 waxes VII-341b
 Waxwing, bird, II-462a
 Waxworks IX-482b
 Ways and Means, Committee of, parliament, X-314b
 W.E.A. (Workers' Educational Association) X-5b
 wealth, national, VII-405b
 weaning of babies XI-14b, 24b
 weapon dances IX-233b
 weapons, *see* war, history of
 Weapons, Hand, X-488b; prehistoric, I-381b
 Weasel II-462b; VI-489b
 Weather III-477b; effect on communications, IV-100b; meteorological instruments, VIII-288b
 weather fish IX-19a
 Weather Forecasting III-480a; 'weather house', III-474a
 weathering of rocks III-125b
 Weaver Bird II-464b
 weaving: cotton, VII-141a; wool, VII-489a
 Webb, Beatrice (1858-1943), social reformer, V-474a
 Webb, Philip (1831-1915), designer, XI-196b
 Webb, Sidney (1859-1947), social reformer, V-474a
 Weber, Carl Maria von (1786-1826), German composer, XII-311a

- Webster, John (c. 1580–c. 1634), dramatist V-475a
- Webster, Noah (1758–1843), American dictionary-maker, IV-358a, 430b
- Wedgwood, Josiah (1730–95), Staffordshire potter, V-475b; VII-242a
- Weeds VI-480a
- Weever-fish II-466a
- Weevil, beetle, II-466a
- Weevil Pests VI-482b, 455a, 465b
- weft, thread, VII-489b
- Wegener, Alfred (1880–1931), German meteorologist, III-110a
- weigh-bridge VIII-482b, 42b
- Weighing Instruments VIII-481a
- weights, agricultural, VI-10b
- weights and measures: history of, IV-262a; International Bureau of, VIII-272b; tables of, Index p. 120
- weights, standard, VIII-481b
- weirs, in rivers and canals, IV-238b, 363a; for measuring water flow, VIII-215b; fishing traps, VI-124a, 398b
- Welding VIII-483a; pressure welding, VIII-171a
- welfare, *see* industrial welfare; child welfare
- welfare services, family, XI-162a
- 'Welfare State' X-331a; *see also* Social Insurance; National Health Service.
- Welland Canal, Canada, IV-482a
- Wellesley, Sir Arthur, 1st Duke of Wellington (1769–1852), V-476b
- Wellington, aircraft, X-55b
- Wellington, Duke of (Sir Arthur Wellesley, 1769–1852), V-476b; as a strategist, X-439b
- Wellington, New Zealand, III-482b; *map* III-312
- wellingtonia (sequoia) *illus.* VI-459
- Wellington College, Berks., X-352a
- Wells and Springs III-483a; well boring, VIII-479a
- Wells, Herbert George (1866–1946), English writer, V-479a
- wels, catfish, II-78a
- Welsh I-486a; *see also* Wales
- Welsh black cattle VI-79a, 133b; *illus.* VI-77
- Welsh coracle, boat, IV-84b
- Welsh Education X-491a
- welwitschia, desert plant, II-119a
- Welwyn Garden City, Herts., X-172b
- Wenceslas, king of Bohemia (1361–1419), I-135a
- Wendish language IV-421a
- Wentworth, Thomas, Earl of Strafford (1593–1641), V-429b
- Wesley, John (1703–91), religious reformer, V-480a; as preacher, XII-413b; as hymn writer, XII-197b
- Wesley, Samuel Sebastian (1810–76), English composer of church music, XII-17b
- Wesleyan (Methodist) I-307b
- West, Benjamin (1738–1820), American painter, XII-10a; *illus.* XII-193
- West Africa III-4b; Nigeria, III-315b; Gambia, III-179a; Guinea lands, III-208b; French West Africa, III-176b; Belgian Congo, III-48a; Angola, III-13b; *map* III-5
- West Highland cattle VI-74a
- West Indians I-487b
- West Indies III-484a; discovery of, V-100a; cricket, IX-165a, 162a
- Westminster Abbey, London, XII-80a, 178a; *illus.* X-187, 197; XII-175; coronations in, X-114a
- Westminster, London, III-263b; X-196b
- Westminster Hospital, London, X-189b
- Westminster Palace X-379b, *illus.* X-91b
- Westminster School X-114a
- Weston, Sir Richard (1591–1652), agricultural improver, VI-8a
- Weston's block, pulley, VIII-99a
- Westphalia, peace of (1648), V-388b
- Westward Ho!*, novel by Charles Kingsley, V-260a
- wet nurse XI-13a
- Weyden, Rogier van der (c. 1400–64), Flemish painter, XII-151a
- whale products: ambergris, VII-337a; meat, XI-299b; oil for margarine, VII-279a
- Whales II-466b; III-347a
- whale-shark, sea creature, II-385a
- Whaling VI-483b; 222b
- wharf cranes VIII-101a
- Wheat VI-486, 223b; weighing, VI-10b; flour milling, VII-192b; flour, XI-48a; bread-making, XI-36b
- wheat, thrush, II-427a
- Wheel IV-484a; wheel notation, IV-239a; axles, VIII-18a; steel tires, VIII-155b
- wheeling machine, for sheet-metal work, VIII-387a
- Wheelwright VI-488b, 393a
- Whelk, shell-fish, II-469; *illus.* II-271; whelk fishing, VI-412b
- Whigs, 19th-cent. political party, X-329b
- whinchat, thrush, II-427a
- whip, parliamentary, X-193a
- whip-poor-will, bird, II-292a
- Whipsnade Zoo IX-496b
- whirligig (medieval coach) IV-86b
- whirligig beetle II-40b
- whirlpool III-441b
- whirlwind (tornado) III-443b
- whiskey-jack, crow, II-109b
- Whisky Distilling VII-467a, 160b
- Whist, card game, IX-483b
- whistle signals IV-414b
- Whistler, James Abbott McNeill (1834–1903), American painter and engraver, V-481a
- whistling IX-428a; whistling buoys, IV-71b
- Whitaker's Almanack* IV-358a
- Whitby, Yorks., coal port, VII-115a
- Whitby, Synod of (A.D. 664), I-124a
- White, Gilbert (1720–93), English naturalist, XII-295b; VI-122a
- White Admiral Butterfly II-469b
- white ants (termites) II-424a; as pests, VI-465a
- Whiteboys, Irish secret society, X-407a
- white-fly, insect pest, VI-27b
- Whitehall, London, *illus.* X-95; Whitehall Palace, X-379b; Banqueting House, Whitehall, *illus.* V-250
- White Horse, Uffington, Berks., III-157a; *illus.* I-150
- white lead VII-325a
- Whiteley, William (1831–1907), British draper, founder of department stores, VII-157a
- White Man's Grave (Gold Coast, W. Africa) III-3b
- 'white metal', alloy, VIII-21a
- white rot, fungus disease of onion plants, VI-304b
- White Russia (Byelorussia), U.S.S.R., III-64b
- White Ship* (wrecked A.D. 1120) IV-387b
- white spirit, solvent, VII-167a
- Whites, butterflies, II-470b; as pests, VI-61b
- White's Club IX-142b
- whitethroat, warbler, bird, II-455a
- whiting, chalk, VII-93b
- whiting, fish, II-93b
- Whitley Councils X-492a
- Whitman, Walt (1819–92), American poet, V-481a; poetry of, XII-16b
- Whit Sunday, festival of Christian Church, I-123a
- Whittington, Richard (died 1423), Lord Mayor of London, V-481b; X-86b
- Whittle, Sir Frank (1907–), inventor of gas turbine, IV-8b
- Whitworth, Sir Joseph (1803–87), British engineer, VIII-275b, 383a
- W.H.O. (World Health Organization) X-214b
- Wholesale Trading VII-469a
- whooping cough XI-251a
- Whymper, Edward (1840–1911), mountaineer, V-482a; IX-332b
- Whyte notation, of locomotive wheels, IV-239b
- widgeon, duck, II-125a
- widow's pension X-318a
- Wigs IX-488a
- Wilberforce, William (1759–1833), English philanthropist, V-483a
- Wild Animals on the Farm VI-489a
- Wild Birds Protection Acts, 1880–1908, VI-349b
- Wilde, Oscar (1854–1900), Irish writer, XII-91a
- wildebeest (gnu), antelope, II-17b
- Wilder, Thornton (1897–), American playwright, IX-319b
- wild flower collecting IX-229a
- Wilfrid, St. (7th cent.), archbishop of York, I-124a
- Wilkes, John (1727–97), English politician, V-484b
- willemite, fluorescent substance, VIII-66b
- William I (William the Conqueror, 1027–87) V-485a; battle of Hastings, X-182b; church courts, X-69b; Domesday book, X-134b; fortifications against Welsh, I-486b; land grants, VI-258a; Norse descent, I-345b
- William I (1797–1888), German Emperor, I-190a
- William II (1859–1942), last German Emperor, X-160b
- William III (1650–1702), King of

- England, X-372b, 92b; Greenwich Palace, X-380b
 William IV (1765-1837), King of England, revenues, X-92b
 William and Mary, reign of, X-372b
 Williams, John (1796-1839), missionary, I-130a
 William the Silent (1533-84), Prince of Orange, V-486a
 William of Wykeham (1324-1404), bishop of Winchester, III-487b
 Willibrord (7th cent.), Christian missionary, I-124a
 Will-o'-the-Wisp (Jack-o'-Lantern) III-486a
 willow, tree, VI-458a; flower, II-159a; fruit and leaves, *illus.* VI-457; seeds, II-379b
 willow-herb, plant, II-130a; fruit, II-168a; seed dispersal, II-379b
 willows (withies) VI-101b; VII-39a
 wills, for inheritance, X-208a; trusts, X-467b
 Wills, W. D. & H. O., cigarette manufacturers, VII-437b
 Wilson, Charles Thomas Rees (1869-), Scottish physicist, VIII-353a
 Wilson, Edward Adrian (1872-1912), British explorer, V-405b
 Wilson, Richard (1714-82), English painter, XII-49b
 Wilson, Thomas Woodrow (1856-1924), President of U.S.A., V-487a
 winches, hoisting machinery, VIII-99a
 Winchester, Hants., III-487a; *illus.*, cathedral, XII-9a
 Winchester College X-351b
 Winchester College Football IX-484b
 Wind III-488a; desert winds, III-92a; Föhn wind, III-168b; hurricane, III-221a; mistral, III-294b; sirocco, III-405a; tornado, III-443b; as weathering agent, III-126b; *see also* climate; cyclone; monsoon
 wind force, *table*, III-490; on buildings, VII-46a
 wind-formed rocks III-378b
 windhover (kestrel), bird, II-140a
 winding machinery, mining, VIII-305a, 301b
 wind instruments: bagpipes, IX-44b; brass instruments, IX-90a; organ, IX-352b; reed organs, IX-400b; wood-wind instruments, IX-486a
 windmills VIII-485b; flour mills, VII-192b
 Window-boxes VI-490b
 window dressing, shops, VII-10a
 Windows XI-489b; glass, VII-205b; ventilation 'quarries', VII-264b
 Window Tax XI-285a
 Wind Power VIII-485b
 Windsor Castle X-380a
 Windsor Park IX-360a
 Wind Tunnel, aerodynamics, VIII-487a
 wind turbine VIII-486b
 Windward Is., West Indies, III-484b; Spanish conquest, I-8b; *see also* West Indians
 Wines, Home-made, XI-494b
 Wines and Spirits XI-492b; wine casks, VII-86a; wine storage, XI-184a
 Wine Trade VII-470a
 wings, aircraft, IV-3b; design, VIII-3a; lift force, IV-151b; wing-flaps, IV-4a
 wing-tip floats, seaplane, IV-398a
 winkle, sea snail, II-396b
 winter cherry, plant, VI-492a, 245a
 Winter-flowering Plants VI-491a
 wintergreen, oil, VII-320b
 winter jasmine, plant, VI-491b
 winter moth II-255a
 winter sports: curling, IX-167a; skating, IX-430b; skiing, IX-432b; tobogganing, IX-465b
 winter sweet, plant, VI-492a
 Wire Drawing (wire making) VIII-489a
 wire-gauge, standard (S.W.G.), VIII-490a
 wireless VIII-356b; portable wireless, IV-449b; rediffusion, IV-355b; *see also* radio; television
 wireless broadcasting IX-95b; corporations, IV-67b; history, IV-69b; programmes, IX-99a, 98a
 wireless exchange IV-355b
 wireless navigation: air, IV-290b; sea, IV-296b
 Wireless Telegraphy, History of, IV-485b
 wireless waves IV-481a; discovery, IV-486a; short wavelengths, IV-410b
 Wire-worm II-472b; as farm pest, VI-51b
 Wisconsin, state, U.S.A., III-453a; *map* III-451
 Wise Men, of Christian story, *see* Magi
 wisent, bison, II-47a
 wistaria, plant, VI-91a, 90a
 Witchcraft I-489b; magic, I-288a; spells and charms, I-450b; trial of a witch, *illus.* X-465
 witch-doctor I-288a; *see also* witchcraft
 witches, *see* witchcraft
 witch hazel, plant, VI-492a
 Witenagemot, Anglo-Saxon council, X-120a, 312b
 withies (willows) VI-101b; VII-39a
 Wittenberg, Saxony, Germany, V-285b
 Witwatersrand, Transvaal, South Africa, III-246b
 wizard, *see* witchcraft
 woad, dye, VII-168b
 wobbigong, shark, II-385a
 Woden (Odin), chief god, Norse mythol., I-197a, 343a, 335b
 Wolf II-472b; Tasmanian, II-261b
 Wolf Cubs, of Boy Scout movement, IX-86a
 Wolfe, James (1727-59), English general, V-487b; *illus.* XII-193
 wolf-fish II-48b
 wolfhound IX-192a
 wolf spider II-400a-401b
 Wollstonecraft, Mary (1759-97), author of *The Rights of Women*, XI-161a; V-414a
 Wolsey, Thomas (Cardinal Wolsey, c. 1472-1530), V-488b
 Wolverine (glutton), mammal, II-473b
 womb (uterus) XI-22b
 wombat, mammal, II-261b
 Women's Institutes IX-485a
 Women's Services (Military) X-492b
 Women's Suffrage X-493b
 Women's Voluntary Service (W.V.S.), X-90a
 Wonders of the World XII-474b
 wood VI-442b; as fuel, VII-172a; hardwoods, VII-223a; softwoods, VII-402b; timber industry, VII-433b
 Wood, Sir Henry (1869-1944), conductor, IX-148b
 Wood, John (1728-75), architect, XI-454b
 wood-block printing IV-333b
 wood butterfly, speckled, II-56a
 Woodcarving XII-476a; African, XII-4b-6b; *illus.* XII-363; American-Indian, XII-13a; of Pacific Islands, XII-304b
 woodchuck, rodent, II-260b
 woodcock, bird, II-452b; *illus.* II-71; migration of, II-267a
 Wood-engraving and Woodcuts XII-478a; electrotpe reproduction, VII-363a
 'wooden tongue', animal disease, VI-22a
 Woodforde, James (1740-1803), diaries, XII-104a
 Woodlands II-474a
 woodlark, bird, II-239b
 Woodlouse (s Slater) II-477a
 Woodpecker, bird, II-477b
 wood pigeon II-320b; as farm pest, VI-475b
 Wood Pulp VII-473a; paper-making, VII-327b, 309b
 wood sorrel, plant, II-324a, 285a
 Wood Wasp (horntail), insect, II-478b
 Wood White Butterfly II-479a
 Wood-wind Instruments IX-486a; XII-315b
 woodwork: cabinet making, VII-74a; carpentry and joinery, VII-80b; fretwork, VII-195b; inlay and marquetry, VII-243a
 woodwork, care of, XI-191b, 233b; stripping, XI-235b
 Woodwork, History of, VII-474b
 Woodworking Machinery VIII-490b
 woodworm XI-191b
 wool VII-482a; sheep shearing, VI-410b
 'Wool churches', of Midlands, VII-482a
 Woolf, Virginia (1882-1941), English writer, XII-301a
 Wool Industry, Medieval, VII-479a; domestic system, VII-165a; Wool-sack in Parliament, X-195a
 Wool Industry, Modern, VII-482a; fellmongering, VII-188a
 woolly aphid (American blight), pest, VI-26b
 woolly bear caterpillar II-429a; *illus.* II-77
 Woolsack, Lord Chancellor's, X-195a
 Wool Spinning VII-487a; history of mechanization, VII-484b
 wool tax, medieval, VII-481b
 Wool Weaving VII-489a; medieval, VII-481a; *illus.* VII-479; invention of shuttle, VII-484b
 Woolwich, London, shipbuilding, VII-387b
 Woolwich, Royal Military Academy, X-43a

Woomera rocket range, Australia, X-180b
 Worcester, battle of (1651), X-97b
 Worcester china VII-348b; XI-435a; *illus.* X-opp. p. 416
 Wordsworth, Dorothy (1771-1855), V-490b
 Wordsworth, William (1770-1850), English poet, V-489b; *Lyrical Ballads*, XII-388a; sonnets, XII-429b
 work dances IX-234b
 work and energy VIII-280a
 Workers' Educational Association X-5b
 Workhouse X-495a; children in, X-79b
 working men's clubs IX-143b
 Workmen's Compensation Acts (1897, 1900, 1906) X-418b
 works, clerk of the, in building, VIII-44b
 work study, in production engineering, VIII-336b; time and motion studies, VIII-337a
 World Council of Churches I-119a
 World Federation of Trade Unions VII-455b
 World Health Organization X-214b
 Worm II-479b; blood system, II-9b; breathing, II-349a; earthworms, VI-122a; movement, II-282b; parasitic worms, VI-315b; scientific classification, II-89a; senses, II-381b, 383a
 worm-casts III-128a
 Worms, Diet of (1521), V-85b
 worm wheel, gearing, VIII-184b
 Worstead, Norfolk, VII-481a; cloth, VII-483b
 wort, in beer brewing, VII-41a
 Worth, fashion house, XI-116a
 wounds XI-169a; infection, XI-26b, 8a
 W.R.A.C. (Women's Royal Army Corps) X-493a
 wrack, seaweed, II-374a
 W.R.A.F. (Women's Royal Air Force) X-493a
 wrangler, Cambridge university, X-68a
 wrasse, fish, IX-18b
 Wrecks and Wreckers IV-489a; derelicts, IV-121a; salvage, IV-391a
 Wren, bird, II-482b; golden-crested, II-180b
 Wren, Sir Christopher (1632-1723), architect, V-491b; churches, XII-83a; St. Paul's cathedral, XII-400a; Sheldonian Theatre, *illus.* X-307
 Wrestling IX-489a
 Wright, Frank Lloyd (1867-), American architect, XII-264b; XI-243a
 Wright, Joseph (Wright of Derby, 1734-97), English painter, XII-68a; *illus.* XII-67
 Wright, Wilbur (1867-1912) and Orville (1871-1948), American flying pioneers, IV-156b
 writ, civil law procedure, X-467a
 Writers to the Signet, Scottish solicitors, X-392a
 Writing, History of, IV-492a; alphabet, IV-22a; handwriting, IV-180a
 Writing Instruments IV-495a; ink, IV-201b; paper, IV-308b
 W.R.N.S. (Women's Royal Naval Service) X-492b

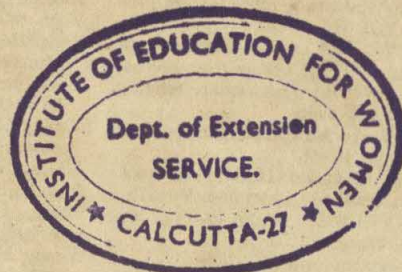
wrought iron VIII-233b; as building material, VIII-419a; furniture, VII-199a
 wryneck (snake bird) II-478a
Wuthering Heights, Emily Brontë, V-56b, 57b
 Wu-Wei, Chinese philosophy, I-113b
 W.V.S. (Women's Voluntary Service) X-90a
 Wyatt, Sir Thomas (1503?-42), English poet, XII-249a, 459a, 429a
 Wycherley, William (1640-17), English dramatist, XII-374a
 Wycliffe, John (c. 1320-84), English religious reformer, V-493a
 Wye Agricultural College, Kent, X-255a
 Wyoming, *state*, U.S.A., III-454a, 198a; *map* III-451
 Wyspianski, Stanislaw (1869-1907), Polish writer, I-370a
 Xanadu, palace of Kublai Khan, V-263b
 xanthophyll, pigment in chlorophyll, II-318b
 Xavier, St. Francis (1506-52), V-285a
 X-boat, submarine, X-435b
 Xenophanes of Colophon (6th cent. B.C.), Greek poet, XII-187b
 Xenophon (c. 430-355 B.C.), Greek historian, XII-188a
 xerography, drawing reproduction process, VIII-112a
 Xerxes (d. 465 B.C.), Emperor of Persia, V-494a; bridge over Hellespont, IV-60a; Zoroastrian religion enforced, I-494b
 Xhosa, Negro African peoples, I-442b; language, IV-6b
 Ximenes, Francisco (1436-1517), Spanish cardinal and statesman, V-165b
 X-rays VIII-493a; use in healing, XI-374a, 42a
 X-ray spectroscopy VIII-288a
 xylophone, percussion instrument, IX-365b
 yacht IX-421b; building, VIII-29a; model yachts, IX-324a
 Yacht Racing IX-490a; ocean racing, IX-365b
 yaffle, woodpecker, II-477b
 yak, wild cattle, II-79b; as draught animal, IV-42b
 Yakutia, *republic*, U.S.S.R., I-437a; Yakuts, I-436b
 Yale University, U.S.A., X-24b
 yam, vegetable, VI-467b
 Yangtze River, China, III-492a; *map* III-87; canals, I-112b; Shanghai estuary, III-399b
 yapock (water opossum), mammal, II-298b
 yard, unit of measurement, IV-264a; history, IV-262b-263b; yardland, agricultural measurement, VI-10a
 Yarranton, Andrew (1616-84), agricultural improver, VI-8a
 yawl, sailing boat, IX-422b
 Yazidis, Syrian peoples, I-465a
 year, calculation of, III-66b
 Yeast II-484a; in beer-brewing, VII-41b; in breadmaking, XI-37b; in

manufacture of industrial alcohol, VII-236a
 Yeats, William Butler (1865-1939), Irish poet, V-495a; XII-271a
 yellow bird's nest, plant, II-363a
 yellow fever XI-460b
 yellow-hammer, bird, II-146a
 Yellow River (Hwang Ho), China, III-492b; *map* III-87; early civilization of, I-105a; flooding, VI-128b
 Yellows, butterflies, II-484b
 Yellowstone National Park, Wyoming, U.S.A., IX-344a
 yellow underwing moth II-290a
 yellowwort, plant, Index p. 67
 Yemen, *state*, Arabia, III-15a, 16a
 Yeomanry: British army, X-41a; trade company, VII-145a
 Yeomen of the Guard, royal bodyguard, X-379a
 yerba maté tea I-351b
 yew tree VI-460b; *illus.* VI-459; for hedges, VI-191a; topiary, VI-450b
 Yezidis, peoples of Iraq, I-255b
 Yggdrasil, tree, Norse mythol., I-343a; *illus.* I-424
 Yiddish language IV-170a
 yield-point, of materials, VIII-418a
 Y.M.C.A. (Young Men's Christian Association) IX-492a
 Ymir, giant, Norse mythol., I-343a
 yodelling IX-427b; IV-414b
 Yoga, religious practice, I-225a
 York III-493b; archbishop of, I-126b; Minister, *illus.* XII-opp. p. 80
 Yorkshire III-155b; clothing industry, VII-109b; county cricket, IX-158b-159a; iron ore deposits, VII-252b; wool industry, VII-485b
 Yorkshire fog, grass, II-183a
 Yoruba, Negro African peoples, I-337b
 Young, Arthur (1741-1820), agricultural writer, V-495b
 Young Farmers' Clubs (Y.F.C.) VI-493a
 'Young Italy' (*Giovane Italia*), revolutionary society, V-303b; X-406b
 Young's modulus, calculating stress and strain, VIII-417b
 youth centres IX-140a
 Youth Employment Service X-147b
 Youth Hostels IX-493b
 Ypres, battle of (1915), X-173b
 Yuan dynasty, of China, I-108a; *chart* I-107
 yucca lily II-247a
 Yucca Moth II-485b
 Yugoslavia (Jugoslavia) III-494a; Dalmatian coast, III-98a
 Yugoslavs I-492a
 Yukagirs, peoples of Siberia, U.S.S.R., I-439a
 Yuletide, festival, XI-155a; origins, IX-284b; Yule log, XI-155a
 Yung Lo (15th cent.), Chinese emperor, encyclopaedia of, I-112b
 Y.W.C.A. (Young Women's Christian Association) IX-493a
 Zacchaeus, in New Testament, Index p. 132a
 Zacharias, father of John the Baptist, Index p. 132a

Zambezi, river, Mozambique/Rhodesia, III-465a; *map* III-5
 Zanzibar, E. Africa, III-496a; as slave-trade centre, VII-401a
 Zapotec Indians, of ancient Mexico, I-309a, b
 Zarathustra (Zoroaster, c. 7th cent. B.C.), Persian religious teacher, I-494a; *see also* Zoroastrian
 Zealots, Jewish nationalists, I-271b
 Zebedee, father of James and John, New Testament, Index p. 132b
 Zebra II-486a; as draught animal, IV-44a
 zebu cattle VI-22a, 75a; *illus.* VI-23
 Zebulon, son of Jacob, Index p. 132b
 Zechariah, Hebrew prophet, I-69b; Index p. 132b
 Zenana (zanana), women's quarters, Hindu society, I-494a
 zenith, in astronomy, III-30b; zenith-finding, in navigation, IV-295b
 Zeno (c. 336-264 B.C.), Stoic philosopher, V-496a
 Zephaniah, minor Hebrew prophet,

Index p. 132b
 Zephyrus, the west wind, Index p. 143b
 zeppelins, aircraft, IV-21a; raids, in First World War, X-14b
 'zero, absolute', of temperature, VIII-442b
 Zeus, Greek god, I-200b, 197a; statue, XII-184b; Index p. 143b
 Zimbabwe ruins, Southern Rhodesia, III-370b
 zinc, metal, VII-493a; distribution, *table* III-284; use in gold extraction, VII-213a
 Zinc Mining VII-493a, 298a; smelting, VIII-283a
 zinc oxide and sulphide, pigments, VII-325a
 zinnia, plant, VI-114a
 Zion (Sion), hill, Jerusalem, I-470a; in Jewish sacred writing, Index p. 132b
 Zionist, Jewish nationalist, I-277b
 Zircon, semi-precious stone, III-496b; *illus.* III, opp. p. 288
 zirconium, mineral, VII-425a
 Zita, St., Index p. 136b

zither, musical instrument, IX-313b
 Zodiac III-108a; in astrology, I-45a
 Zoffany, Johann (c. 1734-1810), German painter, XII-96a; *illus.* XII-2, 95
 Zola, Émile (1840-1902), French novelist, XII-165b
 Zoological Gardens IX-494a
 Zoological Society, London, V-379a
 zoology II-8a; animal reproduction, II-344a
 zoom lens, cine-camera, VIII-72b
 Zoroaster (Zarathustra, c. 7th cent. B.C.), Persian religious teacher, I-494a
 Zoroastrian, religion, I-494a, 429a; sacred books, I-421a; XII-340b
 Zuider Zee Project (Holland) VIII-495a
 Zulu, Negro African peoples, I-495b; language, IV-6b
 Zululand, South Africa, III-412b
 Zurbarán, Francisco (c. 1598-c. 1664), Spanish painter, XII-432a
 Zwingli, Ulrich (1484-1531), Swiss religious reformer, V-496a



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